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Fifty-Third Federal-Provincial/Territorial Wildlife Conference

TRANSACTIONS
1989

St. John's, Newfoundland
June 20 - 23

90-03922/

DATES, SITES, AND THEMES FOR FEDERAL-PROVINCIAL/TERRITORIAL WILDLIFE CONFERENCES

1922-1954	Ottawa, Ontario
1955	Montreal, Quebec
1956	Vancouver, British Columbia
1957	Ottawa, Ontario
1958	St. John's, Newfoundland
1959	Ottawa, Ontario
1960	Regina, Saskatchewan
1961	Ottawa, Ontario
1962	Fredericton, New Brunswick
1963	Ottawa, Ontario
1964	Charlottetown, Prince Edward Island
1965	Winnipeg, Manitoba
1966	Quebec, Quebec
1967	Ottawa, Ontario
1968	Whitehorse, Yukon Territory
1969	Edmonton, Alberta
1970	Yellowknife, Northwest Territories
1971	Toronto, Ontario
1972	Dartmouth, Nova Scotia
1973	Ottawa, Ontario
1974	Victoria, British Columbia (People and wildlife)
1975	St. John's, Newfoundland (Wildlife values)
1976	Fredericton, New Brunswick (Federal-provincial initiatives in wildlife management)
1977	Winnipeg, Manitoba (Wildlife enforcement in Canada)
1978	Quebec, Quebec (Use of wildlife)
1979	Regina, Saskatchewan (Habitat is the key)
1980	Ottawa, Ontario (A national policy on wildlife)
1981	Charlottetown, Prince Edward Island (A national policy on wildlife --Phase II)
1982	Whitehorse, Yukon Territory (Wildlife in Canada's North)
1983	Edmonton, Alberta (Wildlife management--Today and tomorrow)
1984	Timmins, Ontario (Team-work in wildlife management)
1985	Halifax, Nova Scotia (Communicating about wildlife)
1986	Ottawa, Ontario (Canada's role in world wildlife conservation)
1987	Tuktoyaktuk, Northwest Territories (Wildlife: Agenda for tomorrow)
1988	Victoria, British Columbia (Is the current direction of wildlife management in Canada outdated?)
1989	St. John's, Newfoundland (Integrated land management for wildlife--fact or fiction?)
1990	Winnipeg, Manitoba
1991	Fredericton, New Brunswick
1992	Quebec, Quebec
1993	Whitehorse, Yukon Territory
1994	Ottawa, Ontario
1995	Regina, Saskatchewan

Transactions of the
Fifty-third Federal-Provincial/Territorial Wildlife Conference
held in St. John's, Newfoundland
20-23 June
1989

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Highlights of the 53rd Federal-Provincial/Territorial Wildlife Conference

1. Conference opening

David Pike, Director, Wildlife Division, Newfoundland Department of Environment and Lands, chaired the 53rd Federal-Provincial/Territorial Wildlife Conference held in St. John's, Newfoundland, from 20 to 23 June 1989. Mr. Pike explained the differences between this conference and the first one held in Newfoundland in 1958, which was a small meeting of Wildlife Directors and was held to discuss migratory bird regulations, seasons, and bag limits. He said that the conference has evolved into a forum of government agencies and nongovernment organizations with a keen interest in wildlife to discuss mutual problems and concerns. He then introduced his Minister, The Honourable O.P.J. (Jim) Kelland.

Mr. Kelland extended a warm welcome to conference participants. He said he sees his job as ensuring that the natural attributes of Newfoundland/Labrador are maintained, conserved, protected, and managed. He announced that his government is immediately establishing a recovery team for the Newfoundland pine marten. He said it is essential for wildlife interests to find their legitimate place at the Round Table. He pointed out the importance of integrated land management, which is one of the pillars of sustainable development. He suggested that Labrador should perhaps be the site for the conference when it is his province's turn to be host again. He then introduced the Mayor of St. John's.

His Worship Mayor John Murphy spoke briefly about the City of St. John's and invited delegates to visit places of interest in and around the city.

2. Objectives of the conference

Dave Pike mentioned that when the Program Committee developed the agenda for the conference, the members envisaged the conference as being the first of three steps--three consecutive conferences related to the same theme of integrated resource management, with the 1990 and 1991 conferences dealing with different aspects of the same topic. The Program Committee hoped that recommendations for integrating land management for wildlife with other resource uses would come out of the conference. The committee was also looking for answers to the following questions: How can some of the problems we experience be resolved? How can we be more successful in wildlife management and integrated land management? What processes are necessary in respect to planning policy and legislation? When and how deeply should the public be involved? And, finally, how can we build wildlife support?

3. Keynote address

Dr. David Johnston, Chairman, National Round Table on the Environment and the Economy, addressed the question: "Is there a place for wildlife at the Round Table?" Dr. Johnston assured delegates that the National Round Table shares a common purpose with wildlife lovers, to change public perceptions about the interrelationship of the economy, the environment, and wildlife-related activities. He said that wildlife-related spending by governments and other interests is an excellent example of sustainable development in action. He continued that wildlife-related activities have a significant impact on the economy and enjoy a very high level of participation. He mentioned the North American Waterfowl Management Plan as an important example of sustainable development in action in the area of wildlife management. He concluded that through persistence, dedication, and optimism, we can achieve real movement towards the goal we share—the goal of environmentally sustainable economic development.

4. Integrated resources on Crown lands

Dr. Gordon Baskerville, Dean of Forestry, University of New Brunswick, presented an overview of integrated resource management in Canada. Dr. Baskerville stated that there is not much integrated resource management in Canada because there is not much resource management. He said the design of integrated resource management is complex, but it is possible. He stressed that "the biggest problem is us." In closing, he stated: "There can be no such thing as integrated management 'for wildlife.' Integrated management might be for wildlife and something else, but not for any one factor. Until that fundamental truth sinks in, our deliberations may attract some press, but they will continue to be an exercise in futility as far as achieving integrated management of the resource on the ground is concerned."

Dr. Baskerville then chaired a panel of provincial representatives from British Columbia, Saskatchewan, and Newfoundland who spoke about integrated management on Crown lands.

Jim Walker, Director, BC Wildlife Branch, said that the major way wildlife habitat is managed in British Columbia is through an interagency referral system. He said that British Columbia's biggest success story is probably the input his department has had to major hydroelectric proposals that have really affected habitat in British Columbia. He mentioned that one of the biggest problems in British Columbia, because of its diversity, is how to protect species that depend upon wilderness ecosystems. Mr. Walker concluded that "you have to look at the whole gamut of factors when you ask whether integrated management is working." He felt the whole system needs a kick in the pants and hoped that sustainable development and the government's commitment to it will provide that.

The Honourable Colin Maxwell, Minister of Parks, Recreation and Culture, Government of Saskatchewan, stated that right now all political parties are scrambling to grab the environment as their issue. Mr. Maxwell gave examples of integrated management within his own department. He said that he enjoyed meeting and talking with the delegates and that he believes what they were saying, but it is important to bring the message to other elected officials and make them believe our message so they will take appropriate action.

Jim Inder, Assistant Deputy Minister, Parks, Recreation and Wildlife, Newfoundland Department of Environment and Lands, said that at the present time Newfoundland does not have a formal system of integrated resource management, but he explained two systems that his department uses to address the issue: the Interdepartmental Land Use Committee and environmental assessment. Both processes are explained in detail in Mr. Inder's report, which is included in the transactions.

Two "probers," Terk Bayly, Chairman, Niagara Escarpment Commission, and Stew Weldon, Woodlands Manager, Corner Brook Pulp and Paper Company, questioned the panel members on their presentations and provided "food for thought" for the workshops the following day.

5. Workshops

Three workshops were held all day Wednesday and Thursday morning. Three case studies were presented to each workshop:

(1) Case study on the challenge of implementing wildlife habitat objectives into forest management programs, New Brunswick--Jeffrey Patch, Director of Wildlife, New Brunswick.

(2) Case study on timber/wildlife integration in the Blue Mountains of Oregon--Jack Ward Thomas, Chief Research Wildlife Biologist, US Forest Service.

(3) Case study on Canadian success in integrated management, Algonquin Park model--Al Stewart, Regional Director, Algonquin Region, Ontario Ministry of Natural Resources.

The workshop facilitators were as follows:

(1) Workshop 1--Ross Thompson, Chief of Operations, Manitoba Wildlife Branch;

(2) Workshop 2--Paul Griss, Executive Director, Canadian Nature Federation; and

(3) Workshop 3--Bill Prescott, Chief, Atlantic Region, Canadian Wildlife Service.

Gordon Kerr, Regional Director, Western and Northern Region, Canadian Wildlife Service, reported on Workshop 1. He said the decision his workshop reached was that integrated management was the exception in spite of planning. He felt encouraged, however, that the planning processes were becoming more integrated; the implementing of management is becoming the challenge and the goal rather than the integrating of the planning.

In reporting on Workshop 2, Shane Mahoney, Wildlife Biologist, Newfoundland Wildlife Division, said that one of the most significant strengths associated with the three case studies was the fact that legislation does exist and that there was a strong commitment in terms of funding these three programs. One strength mentioned was that all the programs tried to identify measurable goals. His workshop wants monitoring and enforcement programs established and better and stronger educational programs that involve the public. He added that sufficient information must be obtained so that the goals and objectives set are the best they can be. He said the public must know the costs, and we must all recognize the benefits. He pointed out that strong and pervasive government policy is needed, and progress must be monitored and measured.

Diane Griffin, Executive Director, Island Nature Trust, reported on Workshop 3, saying that her group agreed that monitoring and evaluation processes are necessary. It is necessary to decide on reliable indicators for the feedback. Adaptability, it was pointed out, is an extremely important part of planning, and we have to be prepared to take into account other ideas. Workshop 3 felt there had always been some form of integrated management, although it was very weak at first. Ms. Griffin added that integrated planning and multiple use are two different things, and that there will always be a need for exclusive use in some areas. The group made the point that wildlifers are said to like wildlife management for others; however, this does not appear to be the case any longer.

6. Summarization

Dr. Don Dodds, Wildlife Management and Policy, Cervid Consulting, summarized the keynote speech, panel presentations, and workshops. His presentation is included in the transactions. Dr. Dodds remarked that planning and evaluation must be continuous. He said that this year's exercise was valuable, and that similar efforts in future conferences would be useful. He concluded that we need to regularly include an opportunity for people at other levels of the planning process to exchange views, especially at the implementation level. He suggested that delegates return to home base and initiate similar workshop approaches in their own jurisdictions.

7. Guidelines for Wildlife Policy in Canada

Paul Griss, Executive Director, Canadian Nature Federation, gave a brief history of the development of the guidelines and the review process undertaken. He said that the Task Force completed a final draft of a working document for a National Wildlife Policy at the end of April 1989. Wildlife Directors were to send comments to the Task Force by 10 July. A final amended text was to be prepared by the end of July and distributed to everyone who attended the Victoria and the St. John's conferences. A final draft is to be presented to the Wildlife Ministers at their November meeting.

8. Recommendations from the Canadian Wildlife Directors' Meeting

Dave Pike, Chairman of the conference, presented the recommendations from the Canadian Wildlife Directors' Meeting and explained the actions that would be taken. See the transactions for a listing of recommendations.

9. Program Committee members for 1990

Chairman:	Ross Thompson	(Manitoba)
Secretary:	Doug Pollock	(Canadian Wildlife Service)
Members:	Gordon Kerr	(Western and Northern Region, Canadian Wildlife Service)
	Dennis Sherratt	(Saskatchewan)
	Jeff Patch	(New Brunswick)
	David Neave	(Wildlife Habitat Canada)
	Paul Griss	(Canadian Nature Federation)
	Stew Morrison	(Ducks Unlimited Canada)
	Ken Brynaert	(Canadian Wildlife Federation)

10. Invitation to 1990 conference

Lorne Colpitts, Director, Manitoba Wildlife Branch, invited delegates to attend the 54th conference, which will be held at the Holiday Inn in Winnipeg, 19-22 June 1990.

11. Framework for 1990 conference

Ross Thompson, Chairman of the 1990 conference, explained that the 54th conference will be phase 2 of the three-year redress of integrated management from a prairie, wetland, soil, water, and sustainable use perspective. Features will be waterfowl management and planning in that regard, based on local working examples and updates.

12. Conference closing

David Pike, Chairman of the conference, thanked the people involved in planning and implementing the conference and the delegates for attending. He closed by announcing his retirement, saying that he had enjoyed his years working with wildlife and that he was definitely going to miss the "racket."

13. Awards

At the banquet on 21 June, David Pike, Newfoundland Wildlife Division, and Don Simkin, Ontario Wildlife Branch, were presented with awards for their many years of service to the conference. Both Dave and Don will be retiring before the 1990 conference.

Hugh Monaghan, Yukon Wildlife Branch, and Chuck Dauphiné, Canadian Wildlife Service (Headquarters), were presented with awards for their efforts in establishing RENEW. Ned Lynch, A/Director, Migratory Birds and Wildlife Conservation Branch, Canadian Wildlife Service (Headquarters), accepted the award for Chuck Dauphiné, who was unable to attend the conference.

14. Choice of conference theme, 1990

The theme will make reference to integrated management from a prairie, wetland, soil, water, and sustainable use perspective. The final wording will be chosen by the Program Committee at its fall meeting.

15. Attendance

There were 110 registered participants at this year's conference.

16. Dates of subsequent conferences

(55th)	1991	Fredericton, New Brunswick	18-21 June
(56th)	1992	Quebec, Quebec	16-19 June

(57th)	1993	Whitehorse, Yukon Territory	15-18 June
(58th)	1994	Ottawa, Ontario	14-17 June
(59th)	1995	Regina, Saskatchewan	13-16 June

17. Choice of theme for National Wildlife Week 1990

The 1990 National Wildlife Week theme will focus on sustainable development.

Welcoming addresses (1)

The Honourable O.P.J. (Jim) Kelland
Minister
Newfoundland Department of Environment and Lands

Honoured guests, ladies and gentlemen, I would like to extend a very warm Newfoundland and Labrador welcome to all of you. As a new Minister responsible for wildlife in this rich and beautiful province, it is a pleasure and an honour to serve as your host. On behalf of Premier Clyde Wells and the new administration, I also bring greetings to you and a hearty welcome.

This is my first wildlife conference, and I hope it will not be my last. My father is a very well known Newfoundlander; although I have not inherited any of his writing skills or his model ship building capabilities, he did, by having those skills, leave to me a certain pride in my heritage of being a citizen of Newfoundland and Labrador. (Generally speaking, outside the province you will hear the province called Newfoundland, but within the region I represent Labrador is an important and integral part, so I make reference often to Newfoundland and Labrador. When you say Newfoundland you generally, in Labrador, are talking about the Island part of the province, but Newfoundland and Labrador is the way we describe the province ourselves.) I see my job in fulfilling my obligations to that heritage, my job as a Minister of Environment and Lands (which, of course, also includes the wildlife and parks part of a former department), is to ensure that the natural attributes of our province are maintained, conserved, protected, and managed. Our abundant wildlife, our ecosystems, and our spectacular landscapes should be protected so that they are there for generations and generations after us. We must do this in a responsible manner!

I intend to take the stewardship of this particular heritage very seriously. I know that some of the most critical decisions affecting our environment will be made in the next five to 10 years, and I know that as time passes our time to make the proper decisions is diminished. We must act promptly! We must protect and enhance that which we have already! I know that if we do not make the right choices now, we will inflict on those who come after us the effects of our wrong decisions.

I, along with the very professional people I have in my Department, would like to make sure we do not make too many mistakes. With good help and good professional advice, perhaps we can eliminate the wrong choices entirely and avoid mistakes.

Recovering the Newfoundland pine marten

It is in the context of making the right decisions or the right choices with respect to wildlife that I am pleased to announce this morning that this government is establishing immediately a recovery team for the threatened Newfoundland pine marten. When I speak of the Newfoundland pine marten, I am referring to the Island portion, because the situation in Labrador is vastly different from the one on the Island with respect to numbers and populations. The recovery team will be structured along the guidelines of RENEW, which, as you know, is the Committee for Recovery of Nationally Endangered Wildlife in Canada.

The marten has long been a concern of this province. On the Island, trapping of martens has been banned since 1934. By the way, I did not know that until I became involved directly with the department.

There was a pine marten study area established in 1973 around the Little Grand Lake area. More recently, we have conducted research on the ecology and habitat requirements of the marten. Some of this work has been done in conjunction with the Corner Brook Pulp and Paper Company as part of the Environmental Impact Statement requirement. In 1986, the status of the pine marten in Newfoundland attracted national attention when it was listed as a threatened species, and work is continuing today, with the help of the World Wildlife Fund, to set up a recovery team. That is an ongoing process and a commitment we are making today. I know that people who are concerned about wildlife will be pleased to hear that.

We are excited about the prospect of doing something about the pine marten situation here on the Island. We will invite government and nongovernment people to participate as part of the team, and their first task will be to prepare a plan. Going beyond that, the team will be responsible for overseeing the implementation of that particular plan. The result of their work will be that the future of the pine marten in Newfoundland will be ensured; it is hoped that its name will eventually be struck from the list of threatened species. With the proper work of the team and a concentrated effort, we may never again see it on the list! That is our aim and objective with regard to the pine marten in Newfoundland.

Focus of the conference

The theme of this conference, "Integrated land management for wildlife--fact or fiction?," is profoundly important. It is essential for wildlife interests to find their legitimate place at the Round Table. We are supportive of that; in fact, we think it is utterly essential. That is where the land-use decisions are made, where we consider that we can express our views on how things should be protected and enhanced. We have to realize, of course, that we have a responsibility for our wildlife resource, which cannot, I suppose, speak for itself in any forum. It is up to those of us who are concerned with conservation management and control to express the views and make the right decisions. Therefore, in our opinion, wildlife is an integral part of any round table arrangement.

I hope your stay here will be informative and that you will learn from each other. We have quite a number of our own officials here, and through them I wish to become more conversant, more knowledgeable, about the subject matter.

I also hope to participate at the next conference, which will be out of this province, of course. Sometime down the road, maybe 12 or 13 years from now, I would like to suggest Labrador as the site for a future conference.

I hope that your coming together in this province will help focus attention on the importance of integrated land management, which is one of the pillars of sustainable development, a phrase we are now concerned with.

Introduction of Mayor John Murphy

I would now like to introduce a former municipal colleague (he is still a mayor, and I was the mayor of Happy Valley-Goose Bay for about 10 years). We have appeared together before. We were just recently looking at the proposed park site at the top of the Southside Hills leading to Freshwater Bay, a very beautiful area close to this old and beautiful City of St. John's.

Mayor Murphy really needs no detailed introduction, but I can say, from my knowledge of him, that he holds and expresses very strong and firm views and tackles his problems as they come and does not let go until they are resolved. He may have some very firm words for you besides a welcome to the city; nevertheless, I respect his opinions. I know that he has the good of his city, the good of the province, at heart, and he, along with all of us, will work for the good of those things that we need to protect and enhance.

Now, ladies and gentlemen, with words of wisdom and welcome from the City of St. John's, I introduce his Worship Mayor John Murphy.

Welcoming addresses (2)

His Worship Mayor John Murphy
City of St. John's

It is always a great pleasure to welcome people to St. John's, Newfoundland, the oldest recognized community in North America. Despite the fact that Saint John, New Brunswick, is the oldest incorporated municipality, St. John's goes back to 1497.

The Minister, in his welcoming address, was talking about a park that we are proposing to create on top of the Southside Hills. He said it was very near this ancient city. Actually, it is in the City of St. John's, and the city extends beyond that to embrace a large rural area with a marvelous second natural harbour in it. St. John's has an area of nearly 100 square miles, although it has only 100 000 people. The airport is at the northern boundary, and the harbour and the hill are at the southern boundary. I live in the heart of the city, halfway between the airport and the harbour.

When I got up this morning, I looked out my bedroom window at the lovely river that runs past my house and saw my old friends, the wild ducks, which come from Long Pond and go down into the Rennies River. There we have built a marvelous six-mile walking trail, which will take you from the sea at ancient Quidi Vidi Village right up alongside this lovely river, right into the hinterland to a place called the Three Pond Barrens. St. John's is the only city that I know of that has wildlife teaming in the heart of it.

With age comes reflection on the past and maybe a look into the future. I was thinking of that last night when I helped my daughter bring home her little baby boy from the hospital--I have three married daughters, and this was my eighth grandchild. I thought, we are certainly doing our bit to keep the world populated! But do you know that, in July of 1987, the Earth's population had reached five thousand million?

In 1950, when Canada joined Newfoundland, as we like to say, there were 200 million people in Africa. The African population had remained stable over the years due to disease and famine; however, despite the famines and the Sahara Desert, the population of Africa is today three times as large as it was in 1950. Sometimes we wonder about the greenhouse effect, caused by so much of the gas we create by burning things going up and preventing the heat from the sun's rays from escaping from the Earth. I was reading the other day that in the United States, Canada, Britain, and other developed countries, there is one car for every 1.8 people; in the developing countries, there is one car for every 97 people. If these countries ever get rich and their inhabitants all buy cars, what on Earth is going to happen to the Earth's atmosphere? Incidentally, while I am very concerned about the greenhouse effect, I was rather disappointed when I looked at a map to find the only place where the climate was not going to be warmed was Newfoundland—we are about the only place that could really use it.

I was recently talking to the Mayor of Mount Pearl, which is a satellite community contiguous with St. John's. I was telling him that we were getting more of his dogs coming into our city than he was of ours, and that we have got to do something about it. We cannot put up a fence, but dogs do not know any geographical boundaries. Neither do wildlife, and that is why nations must cooperate. You cannot say that the wildlife of Canada are Canada's wildlife, because they do migrate. Many of the birds are lucky enough to go to Florida every winter. So the preservation of the environment and the preservation of the wildlife habitat are international problems. Sometimes I think we go a little overboard. My personal opinion is that some, I suppose good-hearted, enthusiasts have ruined our seal fishery. There is nothing wrong at all with a controlled seal fishery, which is all we are asking for. It provides a wonderful income for a lot of people, and there is nothing worse than seeing people worried about killing seals when they are digging into a great big steak--I cannot see the difference!

When I was a boy, the city limits ended at Empire Avenue. North of Empire Avenue was all farmland. When the city expanded after the war, it wanted to build an arterial road called Elizabeth Avenue, and there was hell to pay for destroying all that farmland. If we had not built that road, there would be only half the population. Then in 1950 it became necessary to build another arterial road called Prince Phillip Drive, and later on it became necessary to put that across the bottom end of Kent's Pond. Fifteen years ago there was a giant march and protest on Confederation Building because they were going to take in part of Kent's Pond, the lower end, to turn that road up to McDonald Drive. Now this is of no interest to our visitors, because they do not know what I am talking about, but it is of interest to the Minister. What I am saying is that there was a great protest concerning what was going to happen to all the birds and frogs when they took part of that pond. Well, they went somewhere, and we got the road, and the pond is still as beautiful as ever, and there are still just as many trout, and so on. It has now become necessary, with almost a million people a year coming from the west on our TransCanada Highway, and with all the development in the east end, and with the development of offshore oil, to put a new road through what is virgin territory. But it has to go in, otherwise what is going to happen to the city?

I had 70 children in Grade 5 in to see me the other day with their teachers and a thick petition with nearly a thousand names on it to "Save Pippy Park." I hated to disillusion them, but I assembled them in the Council Chamber. I told them that their teachers were wrong. I said that the university, when I was going to school, could not take me because it had room for only 200 people. If we had not built Prince Phillip Drive and built the university there (it now has 15 000 students and will have room for 30 000 by the time these Grade 5 students are ready to go there), none of their fathers and mothers could have gone to university. They also would not have had room to build their houses. I said roads have to be built for the city to progress. But there is a certain faction who have taken this as a cause, perhaps because it gives them personal publicity, and they are using little children. I have had letters galore! What is going to happen to the little rabbits? There is loads of land for the little rabbits to go off and do whatever little rabbits do! I realize that we have to preserve our Earth; if we do not keep the ecological systems going, we will not have an Earth. But we cannot let our enthusiasm block reasonable progress. People have to live, they have to work, they have to travel, and they have to have places in which to build their homes.

Now I do hope, speaking of travel, that you will get around to see some of the Island and meet some of the Newfoundlanders, particularly the delightful outport people.

I remember a woman telling me that she went down to the Southern Shore and had a lovely meal, and when it was over she asked for a cup of coffee without cream from the waitress. A little while later the waitress came back very distraught. She said, "We don't have any cream, will you have it without milk?"

Then there is the fellow who went down to Petty Harbour, a lovely fishing village, and he met an old gentleman, and he asked, "Have you lived here all your life?" The old fellow replied, "No, not yet!"

Then there was the farmer who was very proud of his five-acre farm. A Texan stopped his big car, leaned over, and said, "You don't have a very big farm, do you?" The farmer answered, "Mine is one of the biggest farms in this area." The Texan said, "Down where I come from, I get in my car in the morning, and I drive around my farm, and I don't get back until 6:00 o'clock." The Newfoundlander said, "I had a car like that once!"

Anyway, I hope you have a really good time, enjoy yourselves, and look after the world for us. Thank you very much!

Objectives of conference

David Pike
Director
Newfoundland Wildlife Division

When the Program Committee developed the program for this conference, we envisaged it as being the first of three steps--three consecutive conferences revolving around much the same theme of sustainable development and integrated resource management. So the 1990 and 1991 conferences will deal with essentially the same topic but from different perspectives. Lorne Colpitts will be inviting us to the 1990 conference in Manitoba later in the week, and Ross Thompson will be describing the framework for that conference.

What we are hoping will flow from this conference, through the workshops, are recommendations for integrating land management for wildlife with other resource uses. As well, we would like answers to the following questions: How can some of the problems we experience be resolved? How can we be more successful in wildlife management and integrated land management? What processes are necessary in respect to planning policy and legislation? When and how deeply should the public be involved? And, finally, how can we build wildlife support?

Keynote address (1)

INTRODUCTION OF KEYNOTE SPEAKER

Paul Griss
Executive Director
Canadian Nature Federation

Since the release of the Brundtland Commission's report, "sustainable development" has been the buzzword of the conservation and environmental movement. For that reason, the Program Committee has chosen the theme "Integrated Land Management" to run through the next three Federal-Provincial/Territorial Wildlife Conferences, because we believe that if integrated land management works, it is sustainable development on the ground.

The National Task Force on Environment and Economy recommended the establishment of round tables in each province and at the federal level to bring together representatives of the public, business, and government to discuss ways of integrating environmental protection into economic decision-making. At several levels in the wildlife movement, concern has been expressed that the public focus seems to be on defining environmental protection as it relates to pollution and human health. There has been some concern that the interests of the wildlife conservation side of the movement, which is already doing a substantial amount of work on the ground, are not going to filter up to the highest level of decision-making. For that reason, the Program Committee has invited Dr. David Johnston, Chairman of the National Round Table on the Environment and the Economy, to speak to us this morning on the place of wildlife at the Round Table.

Dr. Johnston was born and raised in Sault Ste. Marie, Ontario. He was educated in the United States, the United Kingdom, and Ontario. He has been a Professor of Law and Dean of Law at McGill University, and he is currently Principal of McGill University. As for his conservation credentials, I am pleased to say that he is a long-standing member of the Canadian Nature Federation.

Dr. Johnston was appointed Chairman of the National Round Table last fall, and the National Round Table held its first meeting with the Prime Minister and Lucien Bouchard last week. So I am delighted to welcome Dr. Johnston here today, and I am looking forward to hearing his remarks on the role of wildlife at the National Round Table.

Keynote address (2)

IS THERE A PLACE FOR WILDLIFE AT THE ROUND TABLE?

David Johnston
Chairman
National Round Table on the Environment and the Economy

It is a pleasure to be speaking before such a distinguished group of dedicated environmentalists. You have been in the vanguard on environmental issues for many years. You are to be commended for your foresight, and your persistence, in telling Canada and the world why we must elevate our concerns about the erosion of our natural heritage.

I know that, at times, yours has been a lonely voice. But times are changing, reality is dawning, and the rest of us are joining you in our thinking and--I can assure you--in our actions. It is only recently that so many Canadians have been shocked out of their complacency and have come face to face with the prospect of the degradation, and possible ruin, of the planet's environment. They are demanding changes to our ways of living and of doing business.

As you know, I am the Chairman of the National Round Table on the Environment and the Economy (NRTEE). The NRTEE is a challenging new initiative--an experiment in multisectoral partnerships. Our objective is to be a catalyst, consensus builder, and leader in the pursuit of environmentally sustainable economic development.

Our bible is the report of the World Commission on Environment and Development, also known as the Brundtland Commission. The Brundtland report clearly spells out the concept of sustainable development as, and I quote, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

It has fallen to the NRTEE to forge a multisectoral consensus and to make recommendations on how Canada can best effect the transition to a society rooted in the principles of sustainability.

The 25 members of the NRTEE recently concluded their inaugural meeting. Around the table were leaders from many different sectors of Canadian society--from government, business, and finance, the science and strategic policy sectors, and nongovernment and public interest groups.

I am eager to bring you up to date on our discussions at that meeting. But I would first ask you to indulge me in a few thoughts about the receptive climate for change among Canadians today.

Public concern for environment

My optimism for the future takes much of its strength from the strong base of popular support among the Canadian public, in favour of policies that preserve and perpetuate the environment. Canadians, despite their magnificent legacies of land and water, are unfortunately no strangers to the global environment crisis. We have all heard of the toxic chemical spills; the neighbourhoods evacuated to escape contaminants;

the "closed" signs at public beaches; and the warnings against taking exercise in cities engulfed in smog. Environmental terms such as "ozone depletion," "acid rain," and "greenhouse effect" have entered the everyday vocabulary of Canadians, as well they should.

Out of this has come an unprecedented level of public concern for the environment. In the last 18 months, opinion researchers have found that the environment now ranks higher in so-called "top-of-the-mind" public concern than any other quality-of-life issue in the 50-year history of polling in Canada. According to the latest Environics numbers, the environment is now the number one issue among those four in 10 Canadians who have experienced postsecondary education.

For people like myself, who are involved in public policy, there is a clear message in these statistics: There has never been a better time for effecting policy changes that will tie the concerns of the environment with those of economic development. And, as we know, now is the time for change.

This encouraging public attitude is the indispensable backdrop to understanding the potential of the NRTEE to effect change. It is also a key reason for being optimistic about the outcome of the Round Table's deliberations.

Outcome of NRTEE inaugural meeting

The NRTEE shares a common purpose with wildlife lovers such as yourselves--to change public perceptions about the interrelationship of the economy, the environment, and wildlife-related activities.

At our meeting last week, we decided the most effective use of our time and energy would be to break into groups focused on distinct subject areas. Each of these groups will include members of the NRTEE plus a number of experts from outside the NRTEE.

Let me give you a brief overview of how this will work. At the start we will have five working groups:

(1) One will examine the impact of socioeconomic incentives on the environment and the economy, focusing on areas such as tax and fiscal policies, royalties, subsidies, and regulations.

(2) A second group will examine the way we make decisions. They will look at what goes into the decision-making processes of governments, business, and individuals, and how sustainable development criteria can be dramatically raised in importance. For example, how can we create conditions through which business makes sustainable development a focus of decision making with the same or greater importance as labour and borrowing costs?

(3) The third group will examine recycling practices.

(4) A fourth group will look at how we can best influence Canadian values and behaviour. In this category we will try to develop indicators--almost like the consumer price index--through which Canadians can relate on a personal level to progress towards sustainable development. The input of wildlife experts will be important to this subject area.

(5) A fifth group will make recommendations as to how Canada can best encourage sustainable development internationally.

We will also strike permanent standing committees to work on education and communication, information resources, and membership issues.

I believe it is fair to say, on behalf of all members, that this inaugural meeting was something of an eye-opener for us all. The degree of consensus around the table was startling. This is truly a multisectoral group, but there was no disagreement that change--indeed, rapid change--is not only desirable but absolutely necessary.

In fact, members agreed to communiqué language that emphasizes "their unanimous and strong conviction that the range of issues pertaining to the implementation of sustainable development practices are among the most vital facing our society and the world in general."

In speaking with some of our members who previously sat on the National Task Force on Environment and Economy--our parent, in a way--I was struck by their impression of how far we have come from a time when conflict reigned between the different sectors. Areas that we were able to cover relatively quickly would have been much more difficult just two years ago, when the National Task Force was meeting. It is important to remember this progress in those times when we grow pessimistic that the challenges before us are just too large and the time too short.

Certainly, in forming new partnerships between these sectors, we must overcome attitudes of mutual opposition that have often characterized relations in the past. However, I emerged from the inaugural meeting with a real belief that all of the sectors represented at the table are genuinely striving to develop a deeper understanding of one another's points of view and, furthermore, genuinely want to make progress towards sustainable development.

Those of you who have read our communiqué will see our overall optimism reflected in its language. On a personal level, I am also highly optimistic that our advice will fall on sympathetic ears. The NRTEE reports directly to the Prime Minister, who did us the honour of speaking at our inaugural meeting earlier this week.

We can and must also broaden the base of understanding of the issues and provoke the public and decision makers at all levels to consider the options available to our society and to the world. We will have kindred spirits as allies, in the form of the provincial round tables. To date, seven provinces have established their own round tables. We look forward to working in the same cause with them--albeit functioning independently of each other.

Sustainable development activity in the wildlife field

In preparing this speech, I became very excited by the kind of sustainable development activity that has already been going on in the wildlife field. Wildlife experts have not just sat back and let the misconception build that preservation of the environment is a net cost to society. I think we are all aware that this is a dangerous blind spot for society--and sometimes for governments.

The fact of the matter is that, in economic terms, wildlife-related spending by governments and other interests is an excellent example of sustainable development in action. Wildlife-related activities have a significant impact on the economy and enjoy a very high level of participation. A recent study by Statistics Canada for Environment Canada shows that, in 1987, Canadians spent $5.1 billion on wildlife-related activities, and more than 90% of Canadians participated in at least one activity. These activities ranged from hunting to nonconsumptive activities such as wildlife watching during trips and residential activities, education programs, or visiting game farms or museums of natural history. Reported spending covered accommodation, food, transport, equipment, and so on.

Government expenditures on fish and wildlife management programs aimed at perpetuating the benefits resulting from the sustainable use of these resources amounted to $900 million during the fiscal year 1985-86. During that period, participants in fish and wildlife recreational activities spent $11.2 billion on goods and services required to enjoy these resources.

When calculated across Canada, these expenditures stimulated the economy to the extent of $15 billion in terms of Gross Domestic Product (GDP)--in other words, it can be said that every dollar spent on fish and wildlife management by government sustains $17 of GDP. Of this impact, more than 50% went to salaries paid and 685 000 jobs. In turn, $5 billion was returned to the federal and provincial governments in the form of direct and indirect taxes.

Take the example of Point Pelee National Park in southern Ontario. Every spring, migrating songbirds draw thousands of visitors to the park. In the month of May alone, these visitors add $10 million to the local economy. In fact, $710 000 is spent on film and processing alone.

One example of sustainable development in action in the area of wildlife management is the North American Waterfowl Management Plan. This program may well be the single most important step in the international management of migratory birds since the Migratory Birds Treaty came into effect more than 70 years ago.

Prairie farmers are finding it profitable to leave uncultivated the wetlands that form the hollows on their fields. Not only do these wetlands support migrating wildfowl, but they also repay the farmers by providing a useful reservoir of moisture in the soil during dry periods.

The plan will cost $1.5 billion by the year 2000. That may sound like a lot of money, but it is small in relative terms, when you realize that recreational and business activities centred upon waterfowl will contribute more than $15 billion to Canada's GDP in that period. These activities include tourism, hunting, and plain old bird-watching.

Future challenges

These figures can be taken as a broad base of support for the job that has brought you here to St. John's, the task of integrating land management and wildlife.

In fact, the demand is actually much higher than participation rates indicate. The interest that Canadians expressed in joining or contributing to wildlife organizations exceeded actual participation by more than 600%. It is our mutual challenge to capture this widespread public support and focus it to bolster policies that integrate environmental and economic activities.

The old saying is that you never achieve something until it is gone. In Canada, our wildlife heritage is still with us. But there should be no doubt that threats do exist. What is more, if major national and international efforts are not made in the next decade, the world's environment in general will be damaged--possibly beyond repair.

You might say that Canada and the world in general are faced with a major environmental deficit. This deficit has been run up in small steps. It is not always the result of factory pollution. All too often, it occurs at the local level--through the destruction of wetlands and the pollution of migratory bird conservation sites.

What we have ignored, to our peril, is the fact that an environmental deficit means the extinction of species of birds and animals that, once lost, can never be replaced. This is an intolerably high cost, and so, as the vocabulary of sustainable development continues to take shape, it must be accepted that environmental deficits will require particularly stringent accounting.

The NRTEE is just one among many partners in our overall effort to achieve a sustainable future. As we are all aware, the round table process will not be able to produce dramatic results overnight. But that will not be for lack of trying.

The quality that the round tables must share--along with our many partners around the country, including major national organizations such as the Canadian Nature Federation--is persistence. We cannot let up in our efforts.

The members of the NRTEE have become charged with the significance of their challenge. We want to reach out and share our ideas and our goals with you. We want to see the broadest possible social consensus on the means through which we can achieve a sustainable development pathway.

In closing, I would like to remind you of the ancient proverb: "Blessed is the man who plants a tree knowing he will not be there to enjoy its shade." Let us all think and act like tree planters, ladies and gentlemen. Let us consider how best we can leave the shade, and the sun, to our children and those generations which, if we are sensible and sensitive, will follow.

If we are to be successful in this, we must ask ourselves the question: "Is there more that we as individuals can do, every day or every week, that will make a difference?" I think we all know that the answer to that is "yes"--and, yes, through persistence, dedication, and optimism, I think we can achieve real movement towards the goal we share, the goal of environmentally sustainable economic development.

DISCUSSION

Art Allan (Land Use/Environment Chairman, Manitoba Wildlife Federation): I am very highly involved in habitat preservation for future generations. This has been my career since I retired. I have been to many of these conferences. One of the concerns I have is regarding monoculture, whether it be monoagriculture or monosilviculture, where we decide on a plant or tree and then concentrate on that resource. Through herbicides, we have decided to destroy everything else that does not meet our so-called economic objectives. This, in my opinion, is one of the major reasons why we are looking at environmental deficits.

The question is, what are we going to do about this in the future? Diversification is part of nature, and man is inclined to concentrate on one particular resource and look at it from that economic viewpoint. Has anything come up at the Round Table on this matter? Or has it been discussed at length at any of the round tables?

David Johnston (Chairman, National Round Table): I think that is a very thoughtful question. What we have learned in our discussions is that one must see interventions with nature as a broad spectrum that is heavily interconnected.

The Brundtland Commission report opens with a view of the Earth from the moon and draws the conclusion that perhaps viewing Earth from outer space is the most important scientific event since Copernicus established that the Earth was not the centre of the universe but was only one part of it. The lesson that Brundtland brings is the interconnection of our various impacts on the Earth and the damage they do in cumulative fashion. To undo that damage, one must take a much more connected approach, both through man's impact upon the Earth and through man's focus on the Earth alone, which, of course, is only one of many planets in a galaxy.

The second perspective I will bring to that question is that of a professor of law. Early in my career, my focus tended to be quite technical while trying to master one or two subdisciplines. Later, I realized that each of the subdisciplines has an interconnection with other areas, and that law should be seen as a crystallized set of social values--that intervening here has consequences over there. I might add that this has made me a much more humble lawyer. If scientists can bring anything to bear on the question you just raised, I think it might be the humility to realize that the single approach, the single kind of intervention, and the single kind of focus on one phenomenon are not sufficient.

I would like to add that perhaps we have been too tempted to view our world in strictly economic terms and in terms of mechanical intervention. Certainly, one of the perspectives that people associated with wildlife can bring to the debate is a much broader and more holistic perspective, which I believe is an important lesson for sustainable development.

One of my objectives is to have every schoolchild in this country plant a tree. If a schoolchild simply plants a tree on a rainy May afternoon, it will probably not do very much. But if each of the schoolchildren understands the significance of the tree, and if the kind of tree was different for each of the schoolchildren, and if each has a different impact on the road leading into the village or town, I think the understanding and implications of this would be very important for the movement we are associated with.

Rob Gardner (President, Federation of Alberta Naturalists): Dr. Johnston, several times, in your answer to the last question, you mentioned the view of the world. I feel that conservationists, environmentalists, are doing very poorly in representing their view of the world in 20 or 30 years. I think very often environmentalists are called whiners because they complain that they like things just the way they are, with this amount of destruction, and they do not want any more. They are happy driving their 1.8 cars a day, and they have not presented a view of what they would like to see the world like in 20 years. Is the National Round Table developing some sort of an objective that we could be aiming at, some idea of what our society may look like in 20 years?

David Johnston (Chairman, National Round Table): The short answer is "no," we have not reached that stage of our work since our inaugural meeting. But I think it is a very interesting perspective to take, to cast ourselves 20 or 30 years forward and to predict a little bit.

I would not regard conservationists as whiners. I think your actions have spoken much louder than your words or your whines. What you have done is tried to permit the world to speak for itself, by preserving the world as it is now, or has been, thereby providing us with the lessons for 20 or 30 years ahead. I believe the perspective of what we have is precious. Let us begin by keeping this intact for 20 or 30 years and then by adjusting to whatever new changes 20 or 30 years bring.

Clearly, the long-term perspective is a key ingredient in sustainable development. One of the things Jim MacNeill has brought to our discussions from his Brundtland Commission experience is the perspective of sustainable development indicators. These are yardsticks or signals that cover a period of time in the past and are carried through to the present and into the future, and they provide us with a monitor of where we are going.

Howard Stewart (Canadian International Development Agency (CIDA)): I have a question and an observation related to the question. First, I would like to say that we find the whole round table approach to be very encouraging, and one of the things that we are trying to do with the help of Mr. MacNeill and company at the IRRP is to introduce the idea into some of the countries we work with.

The question is whether or not the Round Table has a clear objective at the end of the whole process, which, involving as it does people like Ministers Wilson and Bouchard, presumably can hope to come up with a series of relatively realistic recommendations at the end of the process. Is that what is envisaged? Or is it just a round table itself--a discussion without any output, which I think would be a frustrating exercise for everybody, eventually?

The observation is that I think we definitely need to have some kind of agenda or some kind of series of nationally accepted goals that we are seen to be working towards, because it is only a matter of time before the Chinas and the Brazils and the Mexicos of the world start pointing out how weak we are at the moment. I am concerned with the environment in developing countries, through my work at CIDA. I am involved particularly with Mr. Wilson's ministry. We are being very rigorous in our analysis of Mexico's and Brazil's and China's environmental policies, and particularly all those other economic policies that have a great impact on the environment. Yet if you apply the same rigour and the same sort of analysis to Canada, we do not really look any different and certainly are not in a position to be criticizing other countries in that respect.

David Johnston (Chairman, National Round Table): Your last set of comments provides the answer to your first very good question.

We have a series of objectives for the National Round Table. One is to provide advice to the Prime Minister. We have been appointed by the Prime Minister, and we answer to the Prime Minister. The objective of our advice will be to ensure that the environment and the economy are seen as mutually complementing concepts, not distant enemies where the environment is considered at the very last second, after an economic initiative has been taken.

I think it is very significant that we have the senior economic minister, the Minister of Finance, as a full member of the Round Table, along with the Minister of Environment. Some of you will recall how, 20 years ago, one did not speak of Ministers of Environment. They did not exist! Beginning as rather junior portfolios, they are now Ministries whose time has come. I believe the next stage is to see the impact and influence of the Minister of Environment, not just as another check to be added to the list, perhaps fairly far down the process towards a decision, but indeed as a perspective to be built in very early.

Objective number one, while providing advice to the Prime Minister, will be to ensure a harmonization of environmental and economic interests in the way decisions are made. The challenge, not simply for the National Round Table but for Canadians during the next decade, is to adjust our country to sustainable development principles. We are not there yet. The vocabulary of sustainable development is relatively new. The breadth of interest to be accounted for, such as environmental deficits, is very novel to many areas of decision making; to cause this country to adjust to sustainable development practices in the next decade, we are looking for profound changes in our values, attitudes, practices, and plans for communicating these changes.

Having international development perspective, I want to finish the answer to this question by paying tribute to CIDA, especially for their early response to the Brundtland Commission. In light of my appearance at the Brundtland Commission as Principal of McGill University, I made an inventory of our teaching and research interests in sustainable development, and I tried to put these into an international development context. We have done a lot of cooperative work with CIDA, and for the first time we were required to ask, in presenting new proposals for international exchanges, research, and teaching programs: "Are we articulating sustainable development proposals and principles, including those of human development?" This gave me an entirely new perspective for our international effort, and it was welcomed very much.

Monte Hummel (President, World Wildlife Fund (Canada)): I wonder what plans you might have for public input into the Round Table process?

David Johnston (Chairman, National Round Table): We have tried to establish the partnership concept as a further dimension of the work of the Round Table. We contemplate a series of working committees that will include several members of the Round Table and a large number of members from other expert or interest groups. I have identified five working committees as the major propellants in our work, both to bring recommendations to the Round Table and to be used as a catalyst for changing current practices in public and private decision making.

Reaching out in this way will be the essential part of our work. Therefore, the involvement of you and others in this room will be crucial to the success of that process. The recycling project, for example, will reach into the municipalities, local schools, and associations in order to develop an expertise that comes from well beyond the 25 members of the Round Table. I might add, as a second dimension, that we are anxious to take advantage of the seven other jurisdictions in Canada that have established round tables. I would expect that the three remaining provinces and two territories that have already done impressive things will follow with some kind of vehicle of this kind. This is an excellent opportunity for us to complement sustainable development initiatives at the national and provincial government levels. As we reach out in the same way, we will have a ripple effect.

Ed Hanna (Consultant, J.E. Hanna Associates): Dr. Johnston, I enjoyed hearing your speech. I could not help but think of an analogy that one of my cohorts, who is an economist, developed, and that is what he calls the bathtub analogy. It goes something like this: Economists, and I believe the number of figures that you gave in terms of wildlife expenditures was a classic economist-type measure, are very good at measuring how fast the water goes through the bathtub, but they have no measure of how full the bathtub is, and they do not know when to turn the water off. I would say to you that I think figures like you have used in terms of economic impact, the amount of money that has been spent on wildlife, can be thrown about in every sector, every group, whether it is tourism, whether it is wildlife, whether it is mining, whether it is forestry--we can all generate those sorts of numbers, but they do not really answer the real question that we should be facing ourselves, and that I think the group that you head should be looking at. That is, when is the bathtub full enough? What are the measures that we should use, not just to deal with the flow, but to deal with, if you will, the capital stock, the heritage, the investments you are referring to? I put it in this context: If you were in the shoes of Michael Wilson and you were coming forward with a new national budget, what tools would you use to decide whether the bathtub was full enough?

David Johnston (Chairman, National Round Table): I think your question is excellent. I agree that one should not be bedazzled by figures, because they can be manipulated to almost any purpose. I included some figures in my comments because there is a tendency at times to look at wildlife as something that should not be regarded in terms of its economic consequences but as a value to be protected for sentimental reasons. I think this is wrong, and, in order to penetrate the debate of people who make budgets, it is helpful to use familiar yardsticks.

In addition, one must develop indicators that go well beyond ones that become dollars and cents on a bottom line. Again, I refer to the experience Jim MacNeill will bring to the Round Table. His view is that we must look at our forests as a capital stock and look at the return we are receiving from that capital stock. His analysis is that Canada's replanting exercise is about one-quarter what is required to keep the stock in equilibrium. He also looks at other sustainable development indicators, such as the unit of energy that goes into each unit of gross national product, and demonstrates that in the period of 15 years between the two oil crises, Japan reduced its energy unit component of its gross national product by 60%. In Canada, we were stable. As well, he looks at the raw material unit input to a gross national product unit and shows that countries like Japan and Sweden have been much more conservationist in reducing that part of the equation, and that Canada has much to do.

This is responding to your question with indicators drawn largely from traditional economics. I also believe that we must change, in a rather profound way, how we look at the world around us and develop indicators that put some value on the preservation of nature as it is, since it is so important to the quality of our life. Here, we have a struggle that has to do with ethics and philosophy, in spiritual values that have not heretofore figured very prominently in decision-making discussions. Perhaps this is the National Round Table's greatest challenge. We have many more questions than answers at this time.

Ed Hanna (Consultant, J.E. Hanna Associates): In your comment to the gentleman from the Federation of Alberta Naturalists, you indicated that long-term objectives were not on the agenda at this time. I guess the thing I have concerns about is that you can have all the indicators you want, in terms of efficiency of unit production of energy and whatever, but until you have that long-term goal, if you will, those capital stock objectives, until you know how full you want the bathtub, it is very difficult to put into context those indicators no matter what they are. I think that is the gist of the question.

Again I come back to Michael Wilson and the situation the Finance Minister is faced with, in trying to decide if this is a good investment or if it is not a good investment. It is fine to look at those indicators, but unless you have a long-term objective, it is very difficult to make a hard decision.

David Johnston (Chairman, National Round Table): I do not disagree. I think if you are using indicators, they must be indicators based on a stock at one point in time compared with a stock at another point in time. That clearly requires you to say how much water is in your bathtub and what kind of bathtub you are dealing with.

Our problem, to continue with this metaphor, is that we have had difficulty identifying the pertinent bathtubs and the kind of water in those bathtubs. I think this kind of shift in thinking will be an important part of our long-term objectives at the Round Table.

Tony Clarke (Director General, Canadian Wildlife Service): I think we are making progress. The fact that we are talking about social and economic indicators, something that we have had a hard struggle through the years to express and to develop, is great.

Wildlife was a sort of a free good, a throwaway, and the fact that now we are beginning to show that it has an economic value, not simply cultural and heritage value, has, I think, begun to make the politicians aware that perhaps this is an important thing.

I think that now, perhaps, we will have a much better chance of arriving at what that capital stock might be. So I am not really that concerned that we are throwing around these figures. That is progress! We will take this thing one step at a time.

The other observation I would like to make is that I am very heartened by all of this, because many of us in this room literally work in the wilderness, at least with respect to wildlife. It is always at the bottom of the agenda, and it is the first thing to fall off in the priority-setting process. It is very heartening that, at the National Round Table, you have made these sorts of comments today vis-à-vis the socioeconomic benefits of wildlife. We hope you will keep working in that direction. Some of us had a hard sell with the North American Waterfowl Management Plan. Some of us still believe it is the mega-demonstration project for sustainable development in this country. It is a project that ultimately will have the farming community, wildlife interests, tourism, and so on working together productively in harmony, and it is very heartening to even hear the North American Waterfowl Management Plan surface in your speech. So, I am very heartened by all of this, and now we will sit back and see whether things progress further.

David Johnston (Chairman, National Round Table): Let me please respond to that. I think the North American Waterfowl Management Plan is a superb demonstration project. I hope you will take pride in putting it in place. It is a superb demonstration project for several reasons. First, it is interjurisdictional. This is key, because it shows how national interests, not just provincial interests, can develop a coordinated plan for a resource, or a series of resources, across international boundaries. That kind of thinking is very persuasive and important as we look at the Earth as you would from a spaceship, as described in the opening paragraph of the Brundtland Report.

I would like to relate one other story that brought this home to me in an interesting way. Several weeks ago, in the United States, I was with a group of business people in the energy field. As profit-making individuals, they were looking for energy alternatives. One of them had just issued a public prospectus to raise financing for a new thermo-generating station in Connecticut, something many of us would be quite concerned about, although it is a response to increasing demands for electricity that are yet to be controlled. The coal-generating plant would use a fluidized bed that reduces the atmospheric sulfur load considerably. The prospectus sought $200 million, plus an extra 1% or $2 million to be spent to strengthen a forest in Guatemala, which would serve as a carbon dump. This forest would take the carbon dioxide produced by the coal-generating station in Connecticut and would convert an equivalent amount of carbon dioxide into oxygen in Guatemala. This private sector generating proposal included how, at, to my mind, quite a modest cost of 1%, the public utility would ensure that the carbon dioxide it put out would be converted into oxygen elsewhere in the world. This is a very encouraging kind of thinking, and I suggest the similar thinking that lies behind the North American Waterfowl Management Plan has permitted this kind of thing to occur in the United States today. I hope we do more on those themes.

Larry Jahn (President, Wildlife Management Institute): First, let me compliment you on number one of the five items your National Round Table is going to focus attention on--socioeconomic incentives. In our experience in the Wildlife Management Institute, and in situations in other countries, socioeconomic incentives have been designed at some time in the past. Today, many are outdated and frequently lead people to bad decisions, because some of the values that you spoke of are beyond dollar expression and are not recognized. This is best exemplified by the fact that we can go on with economic developments and end up having fishery advisories of all types telling people not to eat fish but once a week or once a month, or not at all if they are pregnant or young, rapidly growing individuals. Those are real costs that have been ignored in the past.

The question is, in the economic phases of your work, are you seeking to establish a preventative dimension that will eliminate these costs forced upon society (taxpayers)? Also, in addition to recognizing the cost of values ignored, will taxpayer-funded restoration costs, such as pollution cleanup, be included? Those are terribly important costs in the minds of many who have laboured long and hard trying to bring about constructive change. In terms of the North American Waterfowl Management Plan, of course, institutional arrangements dealing with agriculture, which might have been established at a time when agriculture was rapidly expanding, must be examined carefully. Now, with the disgraceful rates of soil erosion and water degradation, the question is what can be done to reorient the incentives in agriculture to make sure that agriculture is carried out on a sustainable basis and continued erosion/pollution corrective costs to society are avoided?

David Johnston (Chairman, National Round Table): Let me answer by saying, yes, our objective is certainly to try to ensure that the broad base of costs is included very early in project planning. It is interesting to note the thinking of the Minister of Finance, for example, on those kinds of considerations. This is the revolution that we are speaking about, to ensure that environmental concerns and impacts are not just built in at the very last stage but entered into early on. We may also find that a certain course of action should be changed because of its long-term consequences that are either irreparable or indeed very expensive to repair.

Agriculture presents a very good example, because this country's practices, like others in the world, are funded with government incentives and financial support. Maximum production per hectare of land is encouraged, with dramatic applications of fertilizers used to produce very high yields. At the same time, the soil is exhausted, and considerable damage is done to the surrounding environment.

Earlier, I referred to a demonstration project that would reverse that process by encouraging farmers to leave the sloughs in the fields for the purpose of letting wildlife develop and to preserve the moisture in the soil. Other examples are applicable to a very populated area such as southern Ontario: rather than providing incentives for people to clear the land, the forest could be left in its natural state. Our Round Table will help to influence this kind of thinking, but it will not be really effective until it becomes part of the stock and trade of everyday decision making, in both public and private sector policy decisions.

Two of our industrial members on the Round Table are very excited about this development, because they have seen it in their own companies. Roy Aitkin, Executive Vice-President of Inco, took out a full-page advertisement in The Globe and Mail a few months ago, outlining Inco's cleanup efforts. I might explain that I was born in Copper Cliff, near Sudbury, the environment where the largest smokestack in the world was located. This ensured that the pollution produced by Inco was spread across the largest land area and, therefore, diluted. My father ran a small hardware store, and the economic benefits of Inco to Copper Cliff, and his hardware store, were very real. Somehow, while living in the shadow of that smokestack, one was not fully cognizant of the other side, namely, the deficit that was caused. It is therefore very encouraging for me to see a company like Inco interested in turning that image completely around and wanting to be a leader in the preservation movement.

Another story I would like to relate concerns the time when my family moved to Sault Ste. Marie. While studying the history of the community, I realized that about 600 years ago, before the white man came, Sault Ste. Marie was the site of the largest Indian settlement in North America. At a certain time of year, a large number of Indian tribes came to net the whitefish in the St. Mary's Rapids that flow between Lake Superior and Lake Huron. The supply of fish, which was everlastingly sustainable, brought the largest congregation of people. When I grew up there, however, these same rapids had been harnessed for electrical power, which in turn provided the basis for a steel company and for a pulp and paper plant. These had pretty unattractive practices in terms of pollution. We could not swim in the waters below those rapids, where my father had, and where the Indians had trapped the whitefish.

Today, my children are able to swim in the same waters. Algoma Steel and what used to be Abitibi have changed their practices quite dramatically and have begun to restore some balance in their use of the hydroelectric power and in a reduction of their effluent load. Life has not returned to the stage it was 500 years ago, but the swimming has returned, as have the whitefish. I think that is progress!

John Flemming (Deputy Minister, Newfoundland Department of Environment and Lands): I wonder if you could comment on a couple of matters pertaining to the time frame of the Round Table.

Number one, your objective to build consensus seems to me to be long-term in its very nature. I wonder whether you could comment on the time frame that you foresee for the Round Table.

Secondly, there are certain problems that require very immediate action that are almost catastrophic in nature. I guess that probably the best example is the control of chlorofluorocarbons, which require immediate attention. Indeed, there are some people who draw scenarios who would say that there are almost catastrophic and very immediate things that could happen to the atmosphere in particular. I wonder whether the Round Table will have any role in bringing those very serious, but short-term, problems to the top of the agenda.

David Johnston (Chairman, National Round Table): We proposed to the Prime Minister that each of the 25 members be appointed for a two-year mandate. I would expect that some of the members will continue beyond two years, but we wanted to fix a kind of short- to middle-term time frame in our own minds to complete a series of initiatives. We report quarterly to the Prime Minister, in order to develop a sense of discipline. The projects our working groups will undertake fall into three categories: namely, short-term, which will largely be completed within a year; middle-term, with a two- to three-year time frame; and long-term, which will have their impact later. We will try to initiate a range of projects so that we are able to complete some within a short-term time frame and establish a working record of accomplishment. We will also be putting some of our energies into projects that, by their very nature, can only have long-term consequences. I believe we will know within two years whether an initiative is useful and important, in which case it will probably be sustained in the same, or some related, form; if an initiative is not found to be useful, it will, if not disappear, evolve into something that would become more useful.

The international perspective is a very important one. As an example, the Ozone Protection Convention had its birth largely because of some dramatic developments in scientific evidence. The first findings that the ozone layer was growing thin in the Antarctic were later confirmed in the Arctic. I would anticipate that we will be making a strong effort to marshall scientific evidence with respect to the ozone layer and to use the evidence to stimulate important public policy initiatives. I know the Government of Canada and Mr. Clark's Ministry of External Affairs have also been trying hard to marshall that scientific evidence with the public policy initiatives. I will not be surprised if we see some important developments that regard the Montreal Ozone Protocol as a foundation, with more significant initiatives to come. Of course, the great problem is how the industrialized nations have been largely responsible for the diminution of the ozone layer. We now have less-developed countries that say, "It's our turn, and don't put the handcuffs on us," with respect to carbons, fluorides, and other substances that diminish the ozone layer.

I believe the solution has global implications; hence, it is important to ensure that a wide number of nations are involved in reaching an accord. The work of the National Round Table will have some impact on international initiatives; in large measure, however, it will help marshall the scientific evidence and put it in the hands of those who have the diplomatic relationships required to develop other accords.

Shane Mahoney (Wildlife Biologist, Newfoundland and Labrador Wildlife Division): I have seen very little in what you have had to say so far, Dr. Johnston, that would suggest to me why you think your advice is going to be taken. There are a lot of us in this country who are giving advice to politicians and to bureaucrats and to our own peers as to exactly how things might be improved. There have been many commissions, many organizations, many committees, and they have often been set up specifically by the government in power, and often their advice has been ignored. So, given the fact that we probably cannot expect any sort of cataclysmic change in public attitude, because we are so well off in Canada environmentally, relatively speaking, I wonder if you have any tactics in your mind as to how you are going to influence men like Mr. Mulroney and Mr. Wilson and so forth, to ensure that the conclusions you draw are actually implemented in terms of policy for this country. You can have an outspoken public if you want. British Columbia has an outspoken public; but look at some of the policy decisions that are made there with regard to resource extraction, even within their provincial parks system. I think it is fine to have quarterly meetings with the Prime Minister, but I think it is incumbent on your organization, and at least I would like to know what kind of tactics you have, to ensure that your recommendations are acted upon, or if you have any such tactics.

David Johnston (Chairman, National Round Table): First of all, the National Round Table is a public body, and we will require public reports. I expect that you and your associates are among the most active observers and interested parties in this experiment. What we do can and will be judged just like any other sustainable development indicator.

Secondly, I am heartened by the fact that the Government of Canada set up this body. It is one of the first and most vigorous responses to the Brundtland Commission. Time will tell whether that initiative is a durable and important one, but it has been taken, and other jurisdictions, for whatever reason, have not chosen to do it.

Thirdly, the Round Table is an advisory body to the Prime Minister. Although he may disregard the advice, if he does so over a period of time the National Round Table will prove to be an ineffective vehicle. If the advice is accepted and acted upon, it will probably serve as a useful vehicle.

Fourthly, it is our hope that, with the provincial round tables, we will report to the First Ministers' Conference, which takes place each year. We hope that sustainable development matters will be an agenda item at the yearly conference, and, indeed, that a large portion of their meetings will be devoted to this very subject.

Finally, I think the fact that three senior Ministers of the Crown have been named to the Round Table gives some early indication that it is a serious initiative. These Ministers cover a broad spectrum of sustainable development practices. They are busy people, and I presume they have agreed to contribute their time and that of their Ministries because they are genuinely serious.

I do not share your pessimism; I am really quite optimistic. I agree fully, however, that we have just begun, and one will have to make one's own decision as to whether this particular initiative is a useful one for Canada, for sustainable development, and for the environmental movement over the course of the next six to 12 months.

David Pike (Director, Newfoundland Wildlife Division): Thank you very much, Dr. Johnston. You have obviously stimulated some discussion among the delegates. I thank the delegates for their active participation.

David Johnston (Chairman, National Round Table): I have found this a most interesting and useful morning. I hope that the kinds of observation and input that have been made in this discussion period will be the beginning of a continuing dialogue with our National Round Table and our provincial round tables, and that we, who have our modest work to do, can draw in a very important way from those of you who have spent an entire lifetime on these matters.

Mr. Chairman, thank you for allowing me to be your guest today.

Panel on integrated management on Crown lands (1)

INTRODUCTION OF PANEL MODERATOR

Dave Neave
Executive Director
Wildlife Habitat Canada

We heard Dr. Johnston this morning recognize the sustainable socioeconomic benefits from wildlife and our past efforts to illustrate sustainable development. This afternoon, we are starting to examine the degree of success of integrated resources on Crown lands. We said we are advocates, and we think we provide the early examples of sustainable development, but how effective have we really been?

It gives me great personal pleasure to introduce Dr. Gordon Baskerville, Dean of Forestry at the very prestigious University of New Brunswick. Most of you know Gordon for his progressive and very strong views on how to integrate wildlife objectives with timber and other resource objectives within the forest. He has encouraged us, the wildlife community, to work with federal and provincial forestry interests, to take a very positive and proactive approach towards conservation, be it through free trade opportunities, federal-provincial agreements, or stimulating cooperative projects.

When I asked him for a résumé, all he told me was that he has been a professional in the field for 35 years and that it has all been fun, whether it has been with the Canadian Forestry Service, with the University of New Brunswick, with the New Brunswick Department of Forestry, on a sabbatical with industry, or during his days at Yale.

Gordon, we know you are a very strong advocate of integration and how it could work, and you have a national perspective. We look forward to hearing from you this afternoon.

Panel on integrated management on Crown lands (2)

INTEGRATED RESOURCE MANAGEMENT IN CANADA—AN OVERVIEW

G.L. Baskerville
Faculty of Forestry
University of New Brunswick

Does integrated resource management exist in Canada? Does resource management exist in Canada? Are there measurable goals to integrate? Are the temporal and spatial scales for these goals consistent from resource to resource? Does the knowledge exist to design integrated management over relevant temporal and spatial dimensions? Do the means exist, both technical and financial, to implement integrated resource management over relevant temporal and spatial dimensions? Do measures exist to assess the array of benefits from integrated management over the temporal and spatial dimensions of the resource?

The honest answer to those questions must be a somewhat embarrassing no. I say somewhat embarrassing because I believe there is a tendency towards unrealistic expectations with respect to what is achievable in the "instant" context that characterizes contemporary commentary on resource management.

In fact, the single greatest obstacle to integrated resource planning, and to integrated resource management, may well be the set of naive notions about resource management that pervade the media and some of the scientific literature. The casual pronouncement of the solution to a resource problem, independent of knowledge of the particular system, trivializes both the problem and the solution.

Management as articulate intervention

The shallow solutions offered so freely are not management, nor are they capable of being integrated with anything that is management. To manage, even by a dictionary definition, is "to regulate" or "to take control of." That is, intervention to control something towards a desired end is implicit in the active verb to manage.

To permit the design and implementation of management, there must be:

- a defined resource in terms of an area or a population to be managed;
- a defined time horizon over which management is to be achieved;
- a definition of the biological elements that comprise the resource;
- a definition of the pattern of those elements at the present time;
- a definition of how each of those elements develops (grows) over time, and how that growth pattern can be influenced by management actions;
- a specified performance goal for the resource area or population, usually in terms of a particular system state to be achieved and maintained; and

- a specified set of actions that, if implemented over the spatial domain of the resource over a period of time, would control resource level dynamics to bring the resource from its present state to the desired state.

The above seven features are a minimal set. If one is missing from resource management, there will not be system closure on a temporally and spatially specified goal. Resource management in Canada is characterized by trumpeting about activity in some of the above elements while leaving out others altogether. The result has been some lovely colour brochures about "neat things we do," but it is why we have so few examples of real on-the-ground resource management.

There are no magic wands--Boothroyd called management "articulate intervention" and noted that the essence of management is an ability to "see" the resource forward in time. The pattern of change with respect to a set of variables of interest is forecast over a reasonable time horizon and over the scale of the resource. This forecast is either implicit in the head of the manager or explicit by means of a technical model. In either case, the forecast is compared with a target state for the resource. If the forecast and the target are a reasonable match, current management is continued. If the forest and target do not conform, a management plan is formulated with a different action set. The intent of the different action set is to intervene in system dynamics in an attempt to make the desired future happen.

Implementation of a management plan tries to carry out a set of actions in the resource system. It is seldom possible for implementation in the real world to exactly match the written plan, but the attempt must be made, and necessary deviations must be noted. Plans that are not implemented, or that cannot be implemented, are worse than no plans at all.

The crucial point is that success of management, or lack thereof, is measured in the resource, not in what we plan, not in what we say, not in what we write, not even in the things we do. To put that statement in context, some comment on definitions of management is appropriate at this point. In forestry, management planning is the strategic level, and the tactical (local) actions are called silviculture. Forest management is the orchestration of many local stand level actions to bring the whole forest to a desired state. Specifically, planting is not a measure of forest management. The amount of planting tells only how much of that silvicultural activity was undertaken and, out of context of a forest level problem, is meaningless as an index of management performance.

A problem of definition?

By contrast, some wildlife people have referred me to a U.S. Fish and Wildlife manual that defines management as the local actions (i.e., the tactics in the forestry definition), and what I have just defined as management is called strategic planning--that is an enormous difference in perspective. I do not know how widely the U.S. definition is used.

We can use words differently, but if we wish to communicate we had better have a clear understanding of differences in interpretation by the sender and receiver. I often wonder how much of the confusion between timber and wildlife management derives from different definitions of what constitutes "resource management."

Timber management

Set aside, for the moment, the complicating issue of integrated resource management. Does timber management exist in Canada? No, not everywhere. Do examples of timber management exist? Yes, some excellent examples exist. In these cases:

- the forest is defined;

- the production goal is defined;

- the biological cause-effect connections are quantitatively defined as stand development patterns;

- the state of the forest system is defined periodically in terms of the position of each stand with respect to its developmental pattern;

- forecasts of system performance allow analysis of problems over time horizons of 80+ years and in the context of the spatial pattern for the entire forest;

- local silvicultural interventions to address identified forest level problems are defined in terms of how they alter the development of individual stands;

- the required interventions are implementable; and

- the results are measurable.

In these cases, the choice, as well as the spatial and temporal orchestration, of local actions is such that dynamics at the forest level are controlled, and the desired forest level state is reachable and can be said to be sustainable over the time horizon of the management plan.

There are several points here. First, timber management is possible in Canada. Second, there are living examples of timber management in Canada. Third, it is not possible to "see" timber management by looking at a few hectares or a few stands. Fourth, timber management is complex, in that a 400 000-hectare forest might easily have 500 separate harvest operations, 500 separate silvicultural operations, and a multitude of protection and raw material distribution actions each and every year. Fifth, forest management effectiveness is determined by the type of these activities and by the pattern of their implementation spatially in the forest over time periods of the order of a half-century.

Joint production and integrated management

This brings me back to the issue of integrated resource management. In virtually all cases, a natural resource manager is confronted with what economists call a joint production process. Joint production occurs when producing one thing automatically produces another. In simple terms, if you produce lumber, you also produce sawdust. More important to our discussion today, producing logs for a sawmill also produces habitat--the management issue becomes what quality of habitat and what quality of logs.

Joint production processes are the rule in natural resources, and managing joint production processes requires integrated management. Whether or not integrated resource management actually emerges in such cases depends on a number of things:

(1) It depends on how much society desires the joint products. The desire must be such that there is willingness to somehow bear the costs, and inconveniences, of managing.

(2) It depends on jurisdictional matters with respect to resource ownership and the willingness of jurisdictions to meet on technical management grounds, rather than on bureaucratic grounds.

(3) It depends on how bureaucratic structures have created artificial divisions within the resource, because achieving integrated resource management first requires integrating across such bureaucratic structures.

The above people problems far outweigh the technical problems of integrated resource management. People problems predominate over technical problems because the fact of a joint production process means there will be multiple objectives. It is implicit in a joint production process that these objectives will be in conflict. The process of integration is, in fact, the balancing of the output of joint production among conflicting objectives. The role of integrated planning is to examine the dynamic basis of joint production in order to seek a desired mix of output levels. Note that there is no need to put everything in dollars, or any other common unit, but there is an absolute need to place all actions, and the resource responses to these actions, each in its own measurable cause-effect framework.

The minimum requirements for integrating management of, say, saw timber and deer habitat are:

- that management control over resource development on the timber side is technically and bureaucratically possible;
- that a feasible and measurable saw timber objective exists;
- that management control over resource development on the deer habitat side is technically and bureaucratically possible;
- that a feasible and measurable deer habitat objective exists; and
- that there be some means of integrating these two forms of control.

The point here is that management capability and measurable goals are conditions precedent to integration--put bluntly, it is not possible to achieve integrated management if the capability to manage and measurable goals for the individual resources do not already exist.

State of integrated resource management

There is not much integrated resource management in Canada because there is not much resource management--it is not possible to integrate what does not exist. Further, we will not make much progress either towards management or towards integrated management until we expunge the ignorant simplistic notions we carry about each other's actions, and about each other's motives, and until we replace self-serving bureaucratic administration of the use of the resource with integrated technical management of the dynamic development of the resource itself.

It is not surprising to me that there are few examples of integrated resource management in Canada—I am only surprised that anyone expects such examples.

Three institutional hangups

In the context of integrating resource management, three institutional matters need special mention:

- the use of constraints;

- resource ownership; and

- the "more research needed" syndrome.

Constraints

The application of a constraint is not management, because a constraint does not (cannot) cause closure on a goal. Management and constraint are almost opposites. Management is designed internal intervention to bring a system to a specified state. A constraint is an exogenous limit to prevent a system from reaching a specified state. Thus, a habitat constraint placed on timber management limits the nature of the goal for timber management, but it does not cause closure on a goal for wildlife habitat. A constraint may be necessary to facilitate habitat management, but a constraint does not even require that a management goal for habitat exist.

Perhaps the second greatest obstacle to the realization of integrated resource management, on the ground, is a general failure to comprehend the difference between applying a constraint and actually managing. If you think about it for just a few seconds, you will realize that the marvelous "management" solutions so readily offered on TV are not management of the target system at all—rather, they are always constraints on some "other" activity.

That is true whether the speaker is a labour leader, a scientist, a TV commentator, a wildlife biologist, or a neo-classical timber baron complete with black cloak and dripping fangs. What is offered is a constraint to someone else, not management action by the person who is speaking; as long as this constraint mentality persists, there will never be integrated management.

In Canada, resource ownership is predominantly in the form of public common property, and that is the second institutional problem. There is much to indicate that common property resources are difficult to manage. The story of the tragedy of the commons as told by Hardin is relevant here, and most of the resource problems afflicting Canada can be traced to overexploitation of a common property resource. It remains problematical that there could be a government resource management structure that was sufficiently buffered from public pressure for increased exploitation of the resource. After all, the public own the resource, and they want either to use the resource themselves or to have the resource used to create jobs and wealth for their benefit as owners. A government that limits entry to a common property resource will be in trouble at the polls; when entry to a resource commons is not limited, it will be impossible to manage the resource.

Resource ownership/tenure

Currently, there is controversy over industrial access to publicly owned forests. For purposes of timber management, a workable solution has been found in the form of area-based tenure with contractual responsibility for management. This creates a stewardship situation and limits access to the commons, much in the manner Hardin suggested was necessary to prevent re-enactment of the tragedy of the commons. There is much public and bureaucratic resistance to area-based tenure. The resistance takes three forms:

(1) First, there are those who want to get in on the exploitation and resent being closed out. To the extent government yields to this pressure, the forest resource is surely doomed.

(2) Second are the bureaucratically minded folks who see their administrative "control" over the resource eroded. Area-based tenure clearly is a reduction in the bureaucratic control of the resource, but there is no reason for that to mean any reduction in the management control--the difference is crucial. If area-based tenure is rejected in order to allow the continuation of the bureaucratic appearance of management, the forests, again, are surely doomed.

(3) The third source of resistance is from a public who have been badly informed about the realities of management and who fear area-based tenure as a "giveaway" to the dreaded multinationals.

Perhaps the simplest way to sum up the tenure situation is to look at past management performance. When I ask people to identify a publicly owned forest that is reasonably well managed, they regularly identify a forest that has been under an area-based tenure with contractual management obligations for some decades. Asked for a forest that is not well managed, they identify a forest that has been under Crown management control. In the vast majority of the public forests of Canada, responsibility for management has rested in the Crown for at least 50 years. If you like what you see out there so far, then by all means resist the trend to area-based tenures with contractual management. If you believe the forests have not been managed as well as they should have been in the long period while the Crown has borne full responsibility for the management, maybe an alternative should be considered.

"More research needed" syndrome

A common refuge for a beleaguered "manager" of the bureaucratic/administrative kind is the "more research needed" syndrome, and this is the third institutional problem. When such a "manager" does not want to decide, he simply says more research (data) is needed. Carefully played, this can put off the initiation of management (and of responsibility) indefinitely. Buzz Holling and Carl Walters have suggested that contemporary resource management problems call for a new paradigm--adaptive management. Traditional science is unlikely ever to find the answers needed for integrated resource management. Little, if any, of what passes for resource science today has relevance to the problems of actually managing a real resource system--largely because of inappropriate scale of investigation. Waiting for science to help resource management is not only a cop-out, it is downright foolhardy. Adaptive management advocates treating each management step as a resource level experiment, albeit uncontrolled in the classic scientific sense. Therefore, each management step is designed so that the manager learns the things he really needs to know, at the scale he really needs to know them, by studying the resource response to the management actions taken.

The design of integrated resource management is certainly complex, but it is possible. The biggest problem is us. Perhaps there is fear of relinquishing bureaucratic authority or a fear of taking up real responsibility for technical management. Perhaps there is a fear of acknowledging the tentative state of our understanding of the systems we want to manage. In any event, there is a tendency to cling to stupidly simplistic ideas of management. There is a tendency to pronounce that the "other guy" must stop before we can start.

I can see no explanation for this behaviour other than a lack of confidence in what we are about. Nowhere is this more evident than in the predilection of "managers" to talk about the number of things they have done, rather than about the response of the managed system. Public pronouncements concentrate on trees planted, fingerlings released, hectares reserved, and so on—never on the resource response. As long as the emphasis is on the bureaucratic counting of tasks and not on measuring the resource response, we can be pretty sure resource management is in trouble—and that the situation is getting worse.

Conclusion

Anyone who would be an integrated resource manager must shed the protective cloak of bureaucracy, must shed the tendency to blame the other guy, and must be truthful about the level of our understanding of the system dynamics we purport to manage. There is a need to talk more about what each of us will do ourselves and less about what the other guy should not do. The operation of system dynamics at which management effectiveness will ultimately be expressed can only be discovered by intelligent management actions designed to increase our knowledge of the systems as we learn to manage them. We need to embrace the adaptive approach and learn to celebrate the learning from our tentative management steps, however small they may be.

In closing, let me comment that the theme of this conference, "Integrated land management for wildlife--fact or fiction?," beautifully illustrates our problem. I want you to note that in the context of what I have said that title contains a fundamental contradiction. There can be no such thing as integrated management "for wildlife." Integrated management might be for wildlife and something else, but not for any one factor. Until that fundamental truth sinks in, our deliberations may attract some press, but they will continue to be an exercise in futility as far as achieving integrated management of the resource on the ground is concerned.

A BRITISH COLUMBIA PERSPECTIVE

Jim Walker
Director of Wildlife
British Columbia

I would like to thank the conference organizers for the opportunity to come here today to discuss "Integrated management on Crown lands." Richard Dalon, who is the Deputy Minister of Environment for the Province of British Columbia, was unable to be here today, so he asked me to fill in for him.

This topic is particularly relevant for British Columbia, because most of our land base, about 94% of it, is Crown owned, and only about 6% is privately owned. So, to manage wildlife habitat, we have to have a lot of influence over the activities of other agencies and a lot of integrated management.

B.C. wildlife resource

British Columbia is the third largest province in Canada. It is nearly one million square kilometres in size, and our wildlife resource is both abundant and diverse. For example, we like to tell people that we have more species in total and more unique species of mammals and breeding birds than any other province or territory in Canada and probably any other jurisdiction in North America, with the possible exception of Alaska. We have 143 species of mammals; 448 species of birds; 19 species of reptiles; and 20 species of amphibians, for a total of about 630 species. Four of these are designated as endangered; 15 of them we have not yet decided the status of--we suspect they may be in some type of trouble; and a few more are naturally rare; but most are abundant.

It is very interesting to look at what British Columbia has on a world scale. We have 100% of the world's Vancouver Island marmots; 75% of the world's stone sheep; 65% of the world's California big horn sheep; 60% of the mountain goats; 60% of Barrow's Goldeneye; 50% of the wintering Trumpeter Swans; 25% of the world's grizzly bear and Bald Eagles; and 20% of the Harlequin Ducks.

British Columbia has served as a reservoir for transplants of such species as fishers, marten, eagles, and California big horn sheep to many parts of North America, both Canada and the United States. So we certainly have a very diverse wildlife resource!

The wildlife resource in British Columbia is estimated to be worth about a billion dollars annually. The vast majority of British Columbians, nearly 90%, believe it is highly important to maintain both habitat and wildlife. As someone mentioned earlier, we probably have the most environmentally aware and possibly the most environmentally radical province in Canada. This poses all kinds of problems for managers, some good and some bad!

Provincial Crown land

Of the provincial Crown land in British Columbia, about 87% is within provincial forests. As you might know, a major exporter of timber in the world is British

Columbia. So, timber harvesting probably has the greatest impact on any type of wildlife habitat in British Columbia. However, it has also been alienated by human settlements, hydroelectric developments, mines, and other types of human disturbances. Construction of access roads, such as highways, railroads, transmission lines, and pipelines, not only alienates habitat but also allows unregulated access and the types of disturbance that that creates. Less than 1% of British Columbia's total land is classified as prime agricultural land, but erosion of key wildlife habitat to allow marginal agriculture still continues to be an issue in British Columbia, especially with the promotion of cattle ranching in prime wildlife areas.

We have five national parks and 364 provincial parks constituting just over about 5% of the land base in British Columbia. However, as most of you recognize, the park system was set aside largely for recreation for people, not necessarily for protection of habitat for wildlife. Less than 1% of the B.C. land base is directly administered by the Wildlife Branch of the Ministry of the Environment; as a result, in spite of the value and interest in wildlife in British Columbia, habitat is continually decreasing, and we have no control over the land base on which the habitat depends. The lands that have the highest capability for wildlife, of course, are also those that have the highest capability for other uses. You will find that is especially true in a province that has as mountainous a topography as British Columbia does, because all the good land is down in the valley bottom, and that is where everybody wants the land. On the bottom of our correspondence we have a logo that says "A Land Fit for Wildlife is a Land Fit for People." We did not realize when we put it there that that is really our problem!

Wildlife management

The Fraser River estuary, possibly one of the best areas for waterfowl production in the whole country, has been alienated to a high degree. So we are dependent on other provincial agencies in order to get across any type of productive mechanisms for wildlife management and to achieve our wildlife management goals.

The major way in which wildlife habitat is managed in British Columbia is through an interagency referral system that, I suspect, is probably similar to what some other jurisdictions have. We receive about 20 000 referrals annually, and these can range all the way from a proposal to build a major hydro dam right down to simply a cutting plan for one particular area. Our staff review those development proposals and send them back to the originating agency after incorporating suggestions to mitigate habitat impacts on fish and wildlife. But the other agencies are not obligated to take these recommendations or to accept them. They are simply suggestions from us, and if the agencies do not want to accept them they do not have to. We have no legislation in British Columbia for the protection of wildlife habitat. So we have largely an advisory role with respect to the activities of other agencies.

The volume of referrals makes the enforcement and monitoring very difficult. There are about 124 people in the Wildlife Branch in British Columbia; the area is, I think, about three times the size of Texas. So you can see what difficulty we have in trying to get out and monitor individual cutting plans. It is a continuing balancing act between what we can actually go and look at on the ground and what we simply have to make a couple of off-the-cuff assumptions about. With major developments, those that might have a bigger effect than simply the forest industry, there are processes in place to allow us to provide input to them. Mining companies are obligated to prepare reports that include environmental impact assessments and statements of how they propose to mitigate impacts. This process is coordinated by the Ministry of Energy, Mines and Petroleum Resources. We provide recommendations. The final decision, of course, is made by the Ministry of Mines. For placer mining, regional committees exist to review and discuss proposals; again, Mines makes the ultimate decision. We do have a lot of what I would have to call gentlemen's agreements with other agencies about giving our input to major decision-making processes, but we do not have that much legislation that actually requires that they have to take account of our input in these assessments.

Probably our biggest success story, over the years, has proven to be the input we have had to major hydroelectric proposals, which certainly have the potential to affect, and have affected, habitat in British Columbia. I think one of the best agreements that we have had in British Columbia has been with B.C. Hydro; over about the past 15 years, they have committed about $20 million to the promotion of fish and wildlife habitat in areas where they have built dams. I am pleased to say that most of those proposals and most of the compensation programs that we have are very effective, and it certainly shows that integrated management can work if there is a commitment on both sides. It was not always that way with B.C. Hydro! It took a lot of people in Wildlife and Fisheries and a lot of hammering over the years to score the point that environmental concerns had to be part of a big corporation's image.

Maintenance of diversity

As I mentioned, most of our wildlife habitats lie within provincial forests, and the goal of the wildlife program in British Columbia is to maintain the natural diversity of wildlife. We have such a diversity that the goal is a difficult one indeed!

We have some concern about whether or not, in the long term, this maintenance of diversity is going to be compatible with the direction we see the forest industry going in British Columbia. We are concerned that current emphasis and future emphasis on commercial species through intensive silviculture are going to decrease the diversity of the wildlife resource. As you might have read, in British Columbia right now there is a massive ecological environmental battle over the liquidation of old-growth timber. If we lost most of that old-growth timber—I am not saying we will lose it all, but there certainly are plans on the books to log important parts of it—then we will have decreased the diversity for those species that depend upon old-growth timber. Contrary to what people might believe about some of the wildlife agencies, and I think our goals probably reflect those of most of the agencies across Canada, we are not there simply to provide animals for hunters. The prime directive of the wildlife program in British Columbia is to maintain the diversity of that wildlife resource, and that is what we try to do. So we are not simply trying to make arguments for recreationalists; we are trying to make certain that we have enough mix of habitat types in the province to perpetuate the diversity.

Forest industry influence

In reality, timber harvesting drives the system in British Columbia. What we are finding more and more is that the timber industry, as it tries to stay competitive across the world with other countries, dictates more and more where we are going as wildlife managers. We often make the comment that the Director of Wildlife in British Columbia has much less to say about what is going to happen to the future of wildlife in British Columbia than a plantation owner in Georgia or Brazil. So, some of the things that may happen to wildlife, the initial impetus to make those changes, occur far beyond our borders. Again, we are involved in the global economy, and that has an effect on what is going to happen to wildlife in this country.

Recently, in British Columbia, there have been major changes in forest policy that are really affecting what is going to happen. The government has been delegating more and more authority to the forest companies to manage their own tenure, to simply do more forestry on their own. These changes in policy effectively remove the staff of the Ministry of Forests from the process and leave us to deal directly with those companies. As I said, there are a great many of those companies out there and very few of our staff. They log about 270 000 hectares a year in British Columbia. So our staff have to try to respond to this increased volume.

We are attempting to delegate, in a similar fashion, more responsibility for habitat management for both fish and wildlife to the private forest companies. A major experiment under way in British Columbia is to try to see whether or not the private sector will rise to the challenge of helping us to manage fish and wildlife and maintain the type of diversity that we have. It is going to be very interesting in the next five or 10 years in British Columbia as to whether or not the private sector can do as good a job as some people say the government has done.

My own feeling is that the private forest companies are like every other population—they follow a bell curve. There is probably a group of companies on one side of us that will do a lot better job than we ever did because they are concerned about it and they are willing to spend some money. There is another group on the other side that we will probably have to take to court every year in order to get them to do anything. There is a great mass in the middle that will wait to see which way the stick floats before they commit either way. So it is an experiment that I think is probably going to increase right across the country as more and more governments try to devolve responsibility to the private sector. But keep an eye on British Columbia in that particular regard, because we are right in the middle of it now!

Planning processes

We are involved in a number of planning processes at the moment. Last year, under the direction of the Premier's office, a group of interagency representatives initiated development of a total provincial land-use strategy, which I think is one of the things you eventually have to come to in any province if you are going to make any sense out of integrated management. The key elements of this strategy were identified as sustainable development, common visions, stability, comprehensiveness, and equity. We have great expectations that if we can get these types of strategy sanctioned at a senior level, it will give more direction to all of us in terms of how resources are going to be allocated.

One of the biggest problems we have in British Columbia, because of diversity, is how we are going to protect species that depend upon wilderness ecosystems. I think here is where the popular concept of integrated management breaks down. Again, when these very catchy phrases are thrown up to the public or to the industry, no one really sits down to define them. Some people think that integrated management means that we are going to have forestry, agriculture, mining, and wildlife on every hectare of the province. We cannot do that! We have certainly learned that some of the big predators, such as grizzly bears, cougars, wolves, and mountain caribou, have to be relatively undisturbed. So a part of the integrated management equation has to be the fact that some areas will not have integrated management, but they will be set aside for those animals that do not tolerate disturbance. Personally, I regard that as just part of a whole mosaic of land uses that have to be designated for the protection of wildlife.

At a regional level, we are very closely involved with the Ministry of Forests in all types of planning, in timber supply area plans and tree farm licence plans. With the Ministry of Forests' new policy of transferring more of this responsibility over to the companies, such planning processes are going to gain even more importance. In Wildlife, we have tried to get our collective heads together on this. I think our moderator hit the nail on the head: in spite of all the rhetoric, you have to have measurable objectives if you are going to integrate anything. You cannot try to protect every hectare of habitat out there. After a while you realize the fallacy of that. What you have to have is a plan that identifies measurable objectives for different parts of the province.

I am pleased to say that in British Columbia we are almost there. We have currently completed a regional plan for each of the eight regions of the province that identifies supply and demand levels for all our major species. We have 28 species plans that indicate how we are going to manage the major species groups across the province. We have a wildlife land management plan for the land we control and, over all of that, a provincial wildlife strategy that consists of three three-year plans for the next 10 years. So, we would like to think that in the next month or so we are going to have our collective house totally in order. The end result of this will be that we take those objectives for each of the regions up to the government and get the government to sanction them. If we can go back then to the other players in the game and say, "Look, the government has said that we are going to have 35 000 elk in the Kootenays," then you have somewhere to start negotiating from. But if you do not have those types of measurable objectives and are able to support them and have them sanctioned by the government, then the whole integrated management negotiation becomes just a hodgepodge of squeaky wheels.

Although most wildlife habitat in British Columbia is managed by influencing the land practices of others, we do have some lands that we have identified as critical habitat. Acquisition of this land plays a fairly big part in our wildlife program. Where the uses are compatible with other people's land, we will allow other uses on that land. We have about 60 000 hectares, and, as I said, acquisition is a key component of the program. But for a province as big as British Columbia and with the type of major predators we have that roam around, this type of "postage stamp" or "rural-zoo" approach is probably not that defensible. It is defensible for wildlife like waterfowl and for some of our endangered species. But for the wildlife species that pose the real challenge, the major predators and the large ungulates, that scale of actual land ownership is not a reality in modern-day North America.

Cooperative programs

I have to deviate a bit, I think, from what the moderator said about the role of research. I think lots of times managers try to hide behind research, and it is very easy to say that what we need are more data. But we have found that with 630 species out there, with the limited resources we have, we simply do not know what is going on with some of the species. So we have some very good cooperative programs with some of the other resource agencies. I think this is one of the strengths, at the present time, of our integrated approach in British Columbia.

We have a cooperative program looking at the future of grizzly bears in the Khutzeymateen Valley, which is a valley on the north coast of British Columbia, to see whether or not that area could be logged with an acceptable level of damage to grizzly bears. If it cannot be, we have a commitment from the government that logging then will be reconsidered.

We have a program on Vancouver Island that involves a lot of the very expensive old-growth timber, and the end result of that particular program is to try to determine at what age second-growth timber starts to assume the ecological characteristics of old-growth timber, so that deer and elk and other species can winter in that timber. As you can see, this is a very practically applied research project. If we can find out at what age, or under what conditions, second growth can be manipulated to provide old-growth conditions, we could free up more of the old-growth timber. It is very political, but it is a very practically applied type of experiment. I would say that right now in British Columbia we have very good relations with the Ministry of Forests in fostering a lot of these cooperative projects.

Problems

What are our problems? I guess our problems are the same as everywhere else. I will discuss them briefly. We do not have enough resources on the ground to respond to other agencies, certainly not in a province the size of British Columbia. Another thing that has arisen in the last five years that is really posing a problem in British Columbia is the number of conflicting demands from people concerning what they want from wildlife. It used to be easy! Years ago, you could argue with the loggers that you wanted this amount of winter range because you had so many hunters going in there. Those days are gone forever! Now you have the trappers, the anti-trappers, the hunters, the anti-hunters, the guides, the anti-guides, the packers, the animal rights groups, the "let-it-be" people. There is a whole wealth of people in British Columbia, all with different demands and, in many cases, conflicting demands that they all expect us to satisfy. We did a survey several years ago to find out how many different environmental groups we had in British Columbia, and we found 202.

We facetiously make the observation that if you name a valley or a species in British Columbia, we can give you the address of the group that is trying to save it. The wildlife manager has a terrific dilemma in trying to come to grips with exactly what it is we are trying to have integrated management for. Again, as I said, at the forefront is the lack of an overall provincial land-use strategy that allocates certain areas or certain priority uses. Until British Columbia—or every other province--has that, we are not really going to get anywhere with integrated management.

There has to be that sort of senior political direction. I am certainly hoping that one of the things that is going to result from these round tables is a recognition of the need for that type of land-use planning. I think there is a conviction still held by a great many people in some of the resource agencies that integrated management and multiple use mean that everybody can be satisfied on every hectare. That is a myth that we have to bury!

Another thing that I think is an impediment to true integrated management in many agencies across Canada is the different level of commitment. I would say publicly, in spite of the fact that we spend 80% of our time with the Ministry of Forests, and we have some knock-down-drag-out fights, that the Ministry of Forests in British Columbia is light-years ahead of some of the other agencies in their understanding of ecological systems. I think that is because biologists and foresters were taught as ecologists. In some of the other agencies, I do not think that prevails. We can sit down with the Ministry of Forests and disagree over who should get a piece of land, but we will all agree on the ecological principles or what the land will produce, or whatever. I think that when you try to bring people to a common table to talk about integrated management, one of the big impediments is to bring everybody up to speed, so you do not simply have someone there representing an old traditional client group the way they did 30 years ago.

I am concerned about integrated management. We have fooled around for a long time. The buzzword at one time was integrated management, then it was multiple use, now it is sustainable development. We have to get our house in order and move along.

We can always have wildlife in this country, but it is a question of what kind of wildlife we are going to have. There is not that much time available for some of the major decisions to be made with respect to the large, major predators. We can probably assure people that if we have some input into logging in any part of this country, we can generate lots of white-tailed deer. We can also generate raccoons and probably a lot of other wildlife. So, if the only interest is wildlife, we probably do not have a problem. But if the interest is to try to maintain the type of diversity that this country is famous for--major predators like grizzly bears, cougars, wolves, black bears, or whatever--then we really have to get moving and make some critical decisions about what is going to happen to these animals. I think it has to be before the turn of this century!

Is integrated management working?

I hope that sustainable development will have one effect. I hope it will give the people who are involved in integrated management the appropriate kick in the behind, to sit down and look at what is happening in North America, and to try to make it into a workable mechanism for protecting wildlife.

Is it working? I do not know. We have spent a lot of time on it. In spite of what you hear about all the rhetoric and the problems in British Columbia, there are some success stories. We have estimated the animal populations, as far as we could, across British Columbia, and the outlook at the present time in British Columbia is really good. We think there are about 12 000 grizzly bears; they are stable or increasing. We think that there are 3000 cougars; they are on the increase. We think that there are about 8000 wolves; they are on the increase. We have more elk in the province than when David Thompson went there. Our moose and our white-tailed deer are increasing. Our endangered species are, we think, in fairly good shape, to the degree that two of them may be removed from the list. I say that not simply as a testimony to the success of integrated management. I suspect, very slightly, that eight years of really mild winters might have had something to do with it.

I think you have to look at the whole gamut of factors when you ask whether integrated management is working. We are still very optimistic in British Columbia, but, as I say, the whole system needs a kick in the pants. I hope sustainable development and the government's commitment to it will provide that.

Panel on integrated management on Crown lands (4)

A NEWFOUNDLAND PERSPECTIVE

Jim Inder
Assistant Deputy Minister
Wildlife and Parks
Newfoundland Department of Environment and Lands

We have had quite a change in names since the Program Committee started organizing this panel. I am not sure if it is significant that the only names that did not change were those of the probers. We will probably see a little later on why they did not want to back out!

It is difficult to speak following Jim Walker. Jim stores a lot of fancy numbers about British Columbia in a little disk in the back of his head. Nobody questions the numbers, but we sometimes wonder whether the disk is a little old. If you look at his numbers closely enough, you find that what he was really trying to do was hide the fact that he has a lot more problems out there than we do here in Newfoundland.

I plan to take a different approach from that of Jim Walker. I am assuming that you are all knowledgeable about all the good things about wildlife here in Newfoundland. If you are not, we will simply fill any spare baggage that you have with the appropriate brochures to make sure you are.

At the present time in Newfoundland, we do not have a formal system of integrated resource management. We do, however, have two processes in place that attempt to address this issue. I will give a brief summary on how these processes work and then comment on the strengths and weaknesses of each approach.

Interdepartmental Land Use Committee

The first process is the Interdepartmental Land Use Committee (ILUC). This committee evolved from a previous Crown Lands Committee, which used to deal solely with processing individual applications for Crown lands. In the late 1970s and early 1980s, government departments found it increasingly difficult to deal with the proliferation of resource-oriented legislation.

In the Cabinet directive establishing ILUC in 1983, all government departments were advised that "Any legislation, regulation, policy, plan, etc. involving the use of Crown or public lands must be referred to ILUC prior to approval and implementation. Furthermore, all proposals received by the Committee must be approved by the Committee prior to implementation and where conflicts cannot be resolved, approved by either the Minister responsible for lands, or Cabinet."

As an operating principle, ILUC strives to ensure that public sector policies and decisions on land use and resource management are related and complementary.

Since the committee's formal approval in 1983, over 700 projects have been reviewed and approved. A large majority of these (80%) have dealt with forestry, particularly forest access roads and silviculture projects. Less than 1% of these projects could not be satisfactorily resolved by the committee. I think this is a very good reflection of the willingness of the people on the committee to work towards mutually acceptable agreements. Without that kind of willingness, it is difficult to resolve any of these issues.

The committee is constantly evolving and adapting to changing government priorities and new technology. We are satisfied that the current cooperative approach to settling disputes yields far greater and longer-lasting results than a more authoritarian approach that imposes results on the disputants.

Environmental assessment

The second process is environmental assessment. Like most provinces, we have an Environmental Assessment Act that was passed in 1980. Like other environmental impact assessment processes, Newfoundland's act deals with development on a site-specific, case-by-case basis. Although land-use policies and general issues do come into play, broader philosophical concepts that cast the project in question in light of its effects in the context of the province, and its overall resource use, often take second place to the site-specific problems.

The act requires all projects that could have an impact on the natural, social, or economic environment to be presented for examination before they can be allowed to proceed. Proposals within this category are initially reviewed by an Environmental Screening Committee, primarily composed of representatives from both the resource and social sectors of government. The public is also given an opportunity to comment on these proposals. Following the review, the proponent may be released from further obligations or instructed to conduct more in-depth analysis of the environmental and social effects that may arise from this particular development. Should the latter occur, a description of the existing environment must be provided, as well as a description of likely impacts, mitigative measures, and any residual impacts.

Once completed, a review is then conducted by an Environmental Assessment Committee (specific to each development). As well, the project is reviewed by any member of the public who has previously voiced an interest in the process.

I will not go into any further step-by-step detail of the process. I am sure the steps are similar to those in other jurisdictions in Canada. If anyone is interested in our particular act and the regulations falling out from it here in Newfoundland, contact me after the session and I will get that information for you.

Strengths and weaknesses of ILUC

I would like to take each of the processes described and comment on some of their strengths and weaknesses, in particular from a wildlife point of view. The Interdepartmental Land Use Committee probably has its main strength in the fact that it provides a formal opportunity to look at all government development in the province. We often think of ourselves as a small province, and, of course, we are. We all have our own little areas of concern, and we are all busy, and, if we did not have something like this in place, a lot of things would be overlooked. This is probably the main strength of the ILUC.

Table 1. Strengths and weaknesses of the Interdepartmental Land Use Committee.

Strengths	Weaknesses
1. Provides an opportunity to review government development in other departments (only one, but do not underrate).	1. No provision for public participation.
	2. No conflict resolutions provided within the committee.
	3. Does not require any monitoring.
	4. Deals only with government operations.
	5. Deals only with Crown land--not as big a problem here as in most other provinces.

As one might expect, in a critique like this, we have more weaknesses than we have strengths. One of the big weaknesses is that there is no provision for public participation. This is an interdepartmental committee, remember. It is just a review of government projects on Crown lands. Also, there is no particular conflict resolution provided within the committee. To resolve any disputes, we have to go first to the Minister and then on to Cabinet. There is no provision in this committee to require any monitoring after a particular development starts. The committee deals only with government operations. Here we have a little similarity with Jim Walker and the Province of British Columbia, in that most of these government operations tend to deal with forestry; that is not hard to understand, I suppose, because forestry is a big operation in this province as well, particularly as it refers to wildlife, as it is the habitat of our major species. As well, the committee deals only with Crown land. We do not have 94% of our land under the Crown's jurisdiction, but we do have a large percentage, around 75%, and that still leaves a fair amount of area outside the jurisdiction of this particular committee.

This process obviously has some weaknesses, but a great deal of this is overcome by the demonstrated willingness of the members to work towards a consensus. I mentioned earlier that only 1% of the projects reviewed by the committee have not been resolved at the committee level.

Strengths and weaknesses of environmental assessment

The second process, environmental assessment, tends to complement the Interdepartmental Land Use Committee quite well, in that a lot of things that are weaknesses there will show up as strengths in the environmental assessment process. For instance, one of the strengths of this assessment is that it includes private development as well as any development by government agencies. For the most part, we seem to get involved with private development. A lot of our problem areas are solved, as I mentioned earlier, with the Interdepartmental Land Use Committee.

Table 2. Strengths and weaknesses of environmental assessment.

Strengths	Weaknesses
1. Includes private development as well as government.	1. Exemption can be given by Minister, and guidelines are vague.
2. Allows public participation.	2. Environmental concerns are not a factor as to whether project should proceed or not, only as it deals with mitigation.
3. Has provision for monitoring.	3. Economics of the situation often overrule the environmental concerns, e.g., cost of moving a transmission line.

There is also, as in most of these kinds of assessment acts, provision for public participation. I have seen a change, in the few years that I have been involved with wildlife here in this province and in eastern Canada, in the attitude of the average Newfoundlander. A few years ago we did not really have a habit of speaking up against these kinds of things. We left that to people in the big places, like British Columbia and downtown Toronto. They seemed to be doing a fairly vociferous job, if not a good one, in terms of pointing out some of the bad things that we are all doing. We have a lot more interest in the general public and the organized public here in Newfoundland. There is also a provision for monitoring. We have several ongoing studies in the province in which we are involved with cooperative monitoring with the proponent of a particular development.

But even the environmental assessment process has some weaknesses. One of the problems that we poor working stiffs in the wildlife field are concerned with is that exemptions can be given by politicians, by the Minister, under the Environmental Assessment Act. The guidelines, as we see them, and we have pointed this out, of course, are a bit vague, so that they provide some opportunity for a little expediency on some people's part sometimes, and we get developments proceeding maybe a little quicker and a little larger than we would like to see.

Often, too, we find under the assessment process that environmental concerns are not a factor as to whether the project should proceed or not. We deal only with the methods of mitigation. I think that is related to the first weakness, in that the project is going to go ahead so we make some adjustment to appease some of the people who are opposed. One of the things that I noticed very early on is that anytime you discuss environmental assessment with a proponent—whether it is forestry, hydro, or mineral development--the proponent tends to think that anything dealing with economics automatically outweighs the environmental concern. I remember running into this back in the early 1970s when we first talked of bringing the hydro transmission line from Churchill Falls and Labrador to the Island, a very expensive and extensive proposition! Anytime we mentioned moving a line to get away from a particularly sensitive area where there was wildlife or anything else, the cost of moving a transmission line always came up.

Common weaknesses

There are some weaknesses common to both processes. The most obvious one is that both processes are reactive. We do not have a proactive-type process to deal with integrated land management in the province. One common phrase I often use is that the bulldozers are sometimes operational before the process is!

One of the other big concerns that we have is that neither process deals with all situations that are adversely affecting the environment. One good example is the proliferation in the use of ATVs (all-terrain vehicles). Somebody said that there are 1.8 people per car. Here in the province there must be a few ATVs of different sorts per car, and exhaust emissions are not our only concern. We are concerned with mineral exploration, which goes a little beyond what we usually think of as the geologist out with his funny-looking hammer pounding away at the rocks. We get a lot of mineral development and exploration that actually approaches development, and it does not fall into this process until it gets into development, so it is kind of a large loophole. Access roads are also a problem--we have a lot of these here in the province, and we have an ongoing problem that even after a particular development comes to some sort of logical end, we still have the access road. We have not come to grips with proper methods to control the use of these roads. They cause problems not just for us in wildlife but even for the developer or people who are using hydro roads or forest access roads, because of simple problems they cause, such as forest fires starting in remote areas.

Other problem areas

I mentioned earlier that land in Newfoundland is 75% owned by the Crown. This has led to a perception by the general public in the province, and probably others, that we really do not have to worry to the same degree as, say, the Maritime provinces or southern Ontario, because we have lots of space. This is not really the case. Despite the fact that 75% is Crown land, most of that 75% is encumbered by leases, usually by a forest pulp and paper company--usually the better forestry areas of the province; mineral leases also take up a large portion of that, but to a lesser degree. So, the available Crown land that we can manipulate to any degree is much less than what it appears to be.

The Crown Lands Act, which governs a lot that goes on with the Crown lands in this province, is also very limited, because there are no regulations coming from that act. The act is interpreted by guidelines and policies. For those of us who work with government at any level, we know that guidelines and policies can be changed very easily, very conveniently, and often too quickly.

We have another problem in that, here in Newfoundland, we are probably not as advanced with all our plans and planning as are most of the other larger provinces in Canada. Each resource agency seems to operate under different "units" of management. We have 49 or 50 moose management areas in the province. We have eight or 10 different caribou areas that are very intensively managed. These are in no way related to some of the other units that other people are dealing with in the other resources. When we get into an assessment, or are looking at it under the Interdepartmental Land Use Committee, it is often very difficult to compare research data you have as well as data you would like to collect in the future with the other agencies' data for that particular site. This is very evident in reviewing any development. The needed research information has usually been collected without the particular development or other resource agencies in mind. This leads to difficult comparison and lack of consistency in offering alternatives to our political masters. I have always maintained that we (Wildlife) have one more problem than other resource agencies, in that our resource is a mobile one and usually very secretive. It is much easier to count trees or even define mineral locations than it is to count wildlife.

Need for integrated land-use management

I think that what this all points out is the need for more orderly involvement in integrated land-use management here in Newfoundland. In the past year, we have taken a couple of steps to achieve this.

In February 1988, we held an integrated resource planning workshop. The workshop dealt with an attempt at conflict resolution, by conducting a "mock" negotiation exercise on the Lloyds River watershed in the central part of the province. I took part in that exercise; although we generally agreed that we did not actually accomplish very much, it was an eye-opener, and it did lead to a further workshop. In May 1989, a second workshop was held, which was much better received and better organized; while I did not attend most of the sessions, I believe the general consensus is that the second event was much more productive than the first.

One of the main conclusions to come out of this second workshop is the recommendation to seek permission from our politicians to get involved on a more formal basis in integrated land-use planning. We are just approaching this stage, and we do not have a decision on this yet, but I believe the message is clear to me and to other people involved in this area. We must--and we will--get more involved in this area of integrated land management. Once our new policy is in place, I think the future of integrated land management will look brighter in Newfoundland and Labrador.

Panel on integrated management on Crown lands (5)

A SASKATCHEWAN PERSPECTIVE

The Honourable Colin Maxwell
Minister
Saskatchewan Parks, Recreation and Culture

It was with some degree of trepidation that I agreed to speak this afternoon. First, I did not have much preparation time, and, secondly, I am speaking to an audience of professionals who are far more comfortable with the subject material than I am. Because you come from a technical background, you understand the programs across the country better than I do, because I have a multitude of other things to do. What I can do is run through some generalities, from a political or a government perspective.

One of the reasons I like to come to this particular type of conference is to somehow keep my finger on the pulse of wildlife and what is happening across the country, particularly with the nongovernment organizations (NGOs). My bureaucratic staff talk to other bureaucrats, and my political staff, the hacks who work for me, talk to the hacks in the other offices. We do not always talk to the NGOs in the same level. I have been lucky in that the NGOs have felt, I think, reasonably comfortable approaching me, because we have been partners on numerous programs in Saskatchewan that, in my view, would support integrated resource management. I will touch on a couple of those later.

So, the reason I like to come to these conferences is to mingle, to mix, to listen, and, if possible, to answer questions on what we are doing in Saskatchewan. I certainly had no intention of being part of the program or in any way imposing myself on you or throwing my views out this afternoon. Many of you who have attended other conferences, such as the Colloquium in Quebec or the Ducks Unlimited (DU) National Conference in Winnipeg, have heard me before, and you are probably familiar with the stands I have on most issues. I have no problem taking stands on issues!

Speaking about bureaucratic things, governments change, elected politicians change, and new politicians come in with new ideas; Newfoundland is one example, where they changed some departments around and moved some responsibilities from one department to another. That is not indigenous, by any means, to Newfoundland. That happens right across this country whenever there is a change of government, sometimes with a change of ministers. In Saskatchewan, we have reorganized probably about seven times since 1982. The result of these multiple reorganizations is the kind of hodgepodge department that I now have.

Actually, I have been fairly lucky, in that the structure that was put together really suits me personally. I like what I am doing. I have more fun than any other minister in our government! The day it stops being fun, I am getting out, because the money is not worth it--I do not even get as much as my Deputy Minister. All in all, it is a lot of fun being involved in government, being involved with the kinds of things my department does, and being involved with the kind of people with whom we interact as a department. So, I am happy to be here, to have the opportunity to throw in my 10 cents' worth.

I have survived for a while now. As a matter of fact, I am the longest-surviving Forestry and/or Wildlife Minister in any of the provinces in Canada. In

Saskatchewan, there are going to be some massive changes within the next few weeks. I am not sure exactly where I am involved in those changes. All I know is that we have some fairly significant political problems that we have to overcome. The Premier is going to have to make some tough decisions within the next four weeks. I may be giving up my tenure as the longest-surviving Wildlife/Forestry Minister in the country.

Polling and the environment

Somebody mentioned polling today. Never underestimate the politicians' use of polls, nor indeed the attention they pay to them. John Diefenbaker once said: "The only attention you should pay to polls are the ones dogs pay to them." In Newfoundland, the previous government went into the election about 20 points ahead in the polls and came out on the short end. So, what good are the polls? Well, that is a different set of circumstances. When we went into an election, for example, in 1982, we went in 10 points behind, and we came out with 56% of the popular vote, which meant a sweep of 56 seats to eight. We went in going up in the polls, 10 points behind catching up, and the other guys went in going down in the polls, very rapidly, and we crossed paths in the first week. So, polls do have their place and are fairly accurate.

Why do I bother mentioning this? Right now, in Saskatchewan, the number one issue in the polls is the economy. The number two issue is agriculture. It does not matter if we have boom years in agriculture. Farming is sacred in Saskatchewan. In the best of economic times, agriculture is a big issue, because there is too much rain, or there is not enough rain, or there is too much wind, or spring came too early, or we did not have enough runoff, or the ducks ate the crops, or whatever. Agriculture is always up there! Environment is a strong number three. How strong it is is indicated by the fact that health, which is the other sacred cow in Saskatchewan, rates number six in the polls in Saskatchewan. I believe those poll results. I believe them because I talk to all kinds of groups, and, inevitably, environmental questions and concerns come up at almost every meeting I attend.

As to whether polls are worth listening to or not, the deficit does not even register on the scale in Saskatchewan. Polls tend to reflect vested interest groups. If you talk to the Saskatchewan Wildlife Federation and ask what is the biggest single issue in Saskatchewan, they will say habitat--it is critical to wildlife. If you talk to the bankers and big business and ask what is the biggest single issue in Saskatchewan, they will say the deficit--it has to be gotten under control or we are going to be ruined. If you talk to the general public, then you get a far more realistic response, something that you can correlate, interpret, and work upon. This morning, our guest speaker was asked a question to the effect of, "How do you know the government is going to pay any attention to the outcome of the environmental Round Table?" (by the way, I sit on the Round Table in Saskatchewan). You know, because the public are saying, "It is time you elected people took serious notice of the environment, because if you do not take serious notice of the environment, you are going to be number two or number three after the next election." Right now, all political parties are scrambling to grab the environment as their issue and say, "We are the people who will take environmental concerns seriously." I am not going to be partisan, but, as an example in Saskatchewan, the Opposition asks questions and we say, "All you guys ever did was talk about the environment, you never did anything about it, you had 44 years in Saskatchewan and you didn't care about the environment." That is the way the game gets played! But we know that if we do not take it seriously, if we do not address the issues, then the public will have a very strong message for us next time around--regardless of the economy and regardless of agriculture.

I hope to some degree I have explained our thinking in Saskatchewan in terms of environmental issues. I have been described in Saskatchewan as being anti-development. I am not anti-development, but I am not pro-development at any cost. If anyone wants to kick around Rafferty, I do not mind, because the licence application contained the mitigation that was going to be done, particularly in terms of wildlife, waterfowl, and fisheries, because that is my department. We insisted on those things being in there. So I am not anti-development, and if you think I am, I apologize.

Environment and economy

It was also said today that environment and economy are integral. I can relate to that. Let me explain. In Saskatchewan, agriculture is the backbone of the economy. Agriculture accounts for about 17% of our gross product. My department contributes more to the economy of Saskatchewan than agriculture does. I am not supposed to say that, because I might offend 60 000 farmers, and I represent a rural riding. It is tough for farming to be the backbone of the economy when you have had five years of drought, depressed prices, and you cannot sell potash, an economy where $450 million was generated last year to the provincial economy by agriculture and every nickel was a subsidy. Some backbone! We cannot let it go, obviously, and we have been subsidizing it. We are propping it up because it does, in a very real way in the Prairies and in Saskatchewan, in particular, keep our rural economies alive. We cannot let it die!

Structure of Parks, Recreation and Culture

But I am just putting things in perspective. In the last few years, my department was worth $1.2 billion a year to the Saskatchewan economy. I am proud of that, because it is part of our policy of economic diversification. So how do we do all this? What are we doing in Saskatchewan? My department used to be Parks and Renewable Resources until after the last election, when the Minister of Culture and Recreation lost his seat and the Premier phoned me and said, "You are getting Culture and Recreation." I thought, fine, I will take that as well as what I have now. I figured that the Premier would soon have a shuffle, bring in one of the rookies, and give him Culture and Recreation. Instead, he phoned me and said, "I'm combining them into one department, just figure it out and make it work." So that is what we are doing.

Here is what I have now. In the Resources Division, I have 101 regional parks and 31 provincial parks. In Saskatchewan, that does not mean campgrounds, that means full-blown parks, swimming pools, golf courses, etc. We also have Fisheries, Wildlife, Resource Land, and Forestry. We have about 15 million acres of commercial forest in Saskatchewan--it is a major industry for us. On the other side, I have Culture, Multiculturalism, Heritage, Recreation, and Amateur Sport. I also have the four Western Development Museums. I am in charge of the Lotteries (which helps to prop up a lot of other programs that we are devising and doing in Saskatchewan), Government House, Centre of the Arts, and a few other odds and ends, including one Crown corporation.

Integrated resource management

I mentioned Resource Lands. Over half the province is Crown land, and my department administers about 90 million acres of land in the province. Here is where we can start talking about integrated resource management. I do not have to talk to the Forestry Minister about a project we want to do in the commercial forests; instead, my Deputy Minister and I talk to each other about these things. I do not need to ask the Director in the Heritage Branch over in Culture and Recreation if it is okay to do a little studying in some area of the province where there are teepee rings and so on. We just get him together with the Wildlife Director and the Lands Director and say, "We have a project going on down there, don't come back to me until you have a solution to this problem," because the archeologists and the paleontologists also work for my department. So I am in a unique position among my counterparts across the country. I have four or five counterpart ministers in most provinces.

The mining companies have no use for me in Saskatchewan, by the way, but they have to deal with my department because I sign all the surface leases in the province, north or south of the province. Witness Grasslands National Park—I gave it second reading last week in the Legislative Assembly, and I hope it will go through Committee and get royal assent before Parks Week comes up this summer, so that we can officially declare it open. It has been a long haul, but one that was well worth the effort. The Athabasca Sand Dunes in northern Saskatchewan will, during Parks Week, be declared a parkland reserve, and, if I can get my colleague, the Minister of Environment, to get his guys moving, we will also make it an ecological reserve, which will give it major protection. This does not mean that all forms of exploration will be denied. What it means is that anything that takes place in those areas must be compatible with what is there now, because we sign the surface lease agreements with all of the companies.

Now, having set that kind of a scene, where I have Forestry, Fisheries, Lands, Wildlife, and Heritage, you can see how it is easier in Saskatchewan to integrate resource land, integrate resource management, plan for the amelioration of everything that exists within those areas. These are all encompassed under my sprawling department. By the way, we had 4500 employees last year in our department.

Interdepartmental interactions

The only other thing I want is Tourism. It would fit in very well with what we are doing because all the Tourism people do is promote my areas, and they do not do it very well in some instances. We were talking about doing a little development in northern Saskatchewan. When it hit the Cabinet table, it was for 100 cottage lots on Lac l'Orange. It was the first that I had seen of this. I said no, we are not going to sign any land over for something like that, because it is going to mess up the fishery in l'Orange. They had not thought of fish. Tourism just wanted to get people going up there and spending a few bucks. They never even thought about the impact on the sports fishery or commercial fishery on that lake. So, occasionally we bang heads with other departments.

In wildlife, I have to deal with the Department of Agriculture, the Department of Tourism, and the Department of Energy and Mines. I deal with the Department of Rural Development, the Water Corporation, the Department of the Environment, Urban Affairs—because they control parcels of land around small towns in northern Saskatchewan, which they are now going to transfer over to me, including the four major urban parks like Regina--and the Department of Justice--because we have to go to them to get our regulations passed. We end up banging heads with a lot of other departments, Tourism being one. We would not have to bang heads anymore if we got that one under our umbrella, and if we get Environment as well that would take care of it all nicely. We would be talking to all the Directors at one time in the same room and saying, "Don't come back until you have got a solution to this particular problem." The only problem with that, of course, is that there are no balances and checks if it is all under one shop. I believe that you have to have balances and checks.

Regulation

In Saskatchewan, the Department of the Environment is a regulatory body. We have a regulatory function as well in Saskatchewan, along with the Department of the Environment, which helps us considerably with the business of integration. I have 200 or so conservation officers in Saskatchewan. They are not divided into Wildlife, Fisheries, Forestry, Parks, Lands, and Enforcement. They are all responsible for each of those things. That makes a big difference! Each officer is responsible for issuing park permits, for forestry permits, for enforcement in wildlife and fisheries, and a host of other things; each individual reports to a regional director. We have eight regions in the province, and the regional director reports straight to Chief of Operations, and that is right to the Deputy Minister. So we have very much a "hands on" situation with what we are doing with our resources, again something that makes it easier in Saskatchewan to promote this type of a program.

Critical Wildlife Habitat Protection Act

Southern Saskatchewan is one of the most highly developed agricultural jurisdictions in the world. Earlier, I touched on the importance of agriculture to the Saskatchewan economy. It is also an area with a lot of Crown land and an area that is very important to ungulates, several types in that particular part of the province. That is why we implemented the Critical Wildlife Habitat Protection Act. There are just under two million acres of land that cannot be altered or sold, and the disposition of it cannot change without my authority. The Minister can change it, but the Minister does not make very many changes because 35 000 members of the Wildlife Federation scrutinize every single change, because they are published in the Saskatchewan Gazette. If they do not like it, I hear about it. So changes are not made lightly. It is only an escape hatch in the event that some unforeseen mitigating circumstances should arise in the future. We have to go back to the Legislature and pass by Act to the Legislature any land that we want to take out of that Act. It has to be debated in the Legislature as well. We are providing the opportunity for wildlife to flourish, while at the same time not being detrimental to other compatible uses in areas such as grazing.

North American Waterfowl Management Plan

Perhaps the best example of anything we have done in Saskatchewan is the North American Waterfowl Management Plan (NAWMP). We have lots of partners on this obviously, but I like to think we spearheaded it. We were the first to sign into the program; we put money in it. My Director of Wildlife, Dennis Sherratt, is working fulltime on it now. The first-step project at Quill Lakes has really gone well. It is a partnership--federal government, provincial government, local municipal and regional governments and conservation groups, local chapters of the Wildlife Federation. The magnitude of this plan demands that it be a coordinated effort by all of those groups--my department, Saskatchewan Agriculture, Rural Development, Prairie Farm Rehabilitation Administration, Canadian Wildlife Service, Ducks Unlimited, Saskatchewan Wildlife Federation, Wildlife Habitat Canada, Saskatchewan Natural History Society (most of which I have memberships in, and had them long before I got this job). They are all working on this in a cooperative manner. It is very impressive to see groups such as that with a common goal, but usually with diverse methods of achieving that common goal, actually working together and cooperating, and to see it going as smoothly as it is going, however slowly it may be going.

As you know, NAWMP is a program of wetland protection and enhancement. But it is going to succeed only if we can convince the farmers who are involved in it that there is something in it for them. For years now, not only have we allowed them, but we have encouraged them in certain cycles of the agricultural period during their economic strifes to take every acre they could and make it arable. This has meant knocking down brush right across the southern part of the province and destroying much of what was called the parkland area. They have drained sloughs; worse than that, they have burned all around where they have drained the sloughs, and there is no cover for nesting birds. Not only is there no cover, but with the drought we have had over the last five years, we have three-year-old ducks who are only now learning to swim.

So, we have to convince the farmers that there is something in it for them. Then it will be a win-win situation--conservation and wildlife win and the farmer wins. Part of that is mitigation. You try to convince a farmer that this is good for him, when he has got his crop swathed in the fall and it is lying in the field and there are 5000 ducks out there. Have you ever heard 5000 ducks chewing on a crop?--it is quite an impressive sound, if not an impressive sight. We have been doing all kinds of things with local wildlife members, helping us to convince the farmers that this is going to be a good program. Our populations overall are down anywhere from 25 to 33% of where they were not too many years ago. The thrust of this program is to get us back to those earlier population levels, while at the same time convincing farmers that soil and water conservation programs are good examples for them of integrated resource management.

Water Corporation

We have a corporation called the Water Corporation in Saskatchewan. This came about as a result of polling. When Decima was doing the polling for us, they came back with the results that over 80% of the population of Saskatchewan said water is going to be the single biggest issue by the year 2000. We were not really surprised. We had commissioned the poll because we had been hearing rumblings about water, and we were going into dry years, and so on. It was a big enough issue that we created a Crown corporation called the Water Corporation in Saskatchewan--it is intimately involved in every water project in the province. We have some very interesting projects coming up--we are going to have a dandy in Thunder Creek.

Heritage Marsh Program

I do not want to take a lot of time running through all of our programs, but there are examples of integrated resource management. The Heritage Marsh Program is a component of the North American Waterfowl Management Plan; the department, Ducks Unlimited, the Wildlife Federation, the Natural History Society, and Wildlife Habitat Canada are all involved. It is working, and it is a good project to be involved in.

Prairie Pothole Project

We talk about sustainable development. We are helping farmers use their land base in an improved fashion and at the same time doing something for waterfowl populations. The Prairie Pothole Project was just a dandy project. The RNs who helped us with the project, building little nests and boxes out in the middle of the sloughs and marshes, said, "This is crazy; do you think ducks are going to breed there?"--well, breed they did. Every little box had a nesting pair in it. Again, the department, Saskatchewan Agriculture, Prairie Farm Rehabilitation Administration, Canadian Wildlife Service, the local municipal governments, Wildlife Federation, and Wildlife Habitat Canada all cooperated with this program to get it up and running. In fact, Ducks Unlimited has really looked at this. Maybe they did not like it at one time, but now they are going with the Prairie Care Program, which is not much different from the Prairie Pothole Project when you stop and look at it. So we are quite flattered that Ducks Unlimited has looked at the program and said, "Yes, this isn't too bad after all. We will take it, run with it, improve on it, and come back with an even better program."

Saskatchewan Upland Preservation Enhancement Restoration Program

Another project that we are involved with is the Saskatchewan Upland Preservation Enhancement Program (SUPER). Monte Hummel, for the World Wildlife Fund, and I just signed the deal today. The Wildlife Federation and the Natural History Society are also intimately involved in that one. What we are going to try to do is drive this upland habitat program through acquisition of land and enhancement of what is there. As most of you know, in Saskatchewan we target money from licences--a third goes right into a fund, the Fish and Wildlife Development Fund, from which we can acquire land and eventually manage it. We do the same thing with fisheries.

When we do these kinds of programs, we have to coordinate them with Saskatchewan's farming economy. We can never overlook the farmers or leave them behind. We have to bring them along with us and show them that these things are working, so that they continue to give us the kind of support that they have been giving us in the past.

Forestry resource management

I have to touch on forestry resource management for a moment. We are doing a five-year project to develop an integrated forest management process. It is going to link the wildlife habitat needs with timber, harvesting, and planning. Our partners here are the Wildlife Federation and Warhauser Canada, who recently signed an FMLA with us for managing a large tract of forest land. We are computer driven on this with our geographical information system, and what we have been able to do is overlay our habitat lands on the geographical information system we have for forestry. We have overlays of the ungulates, where they are breeding, where they are being sighted, where they are being shot in hunting season. People in the department are integrating all of this information for us so that we will know what is the best use of forest land--how best to use the resources, but in a way that is best for our wildlife and for our furbearers, because trapping is a big issue in Saskatchewan and one that I support heartily.

Problems

It takes a lot of time and commitment on behalf of a lot of other departments, and they do not always share the kind of missionary zeal that my Wildlife Branch has. So, guys like Hugh Hunt and Dennis Sherratt spend a lot of time pleading and cajoling with and educating people in other departments. We have a lot of work to do to repair the damage that has been done from what we would say is less-than-ideal farming practices over the years. We have been losing habitat at an alarming rate, with bush getting knocked down, sloughs drying up, and everything else. You know, we used to pay people to do that. Now we are trying to fund programs to pay them not to do that anymore. We have come 180 degrees on this one, and yet we are losing habitat today in Saskatchewan at the rate of 3% per year. It is either human error or human stupidity. We have to combat human stupidity in terms of current farming practices.

Summary

Let me sum it up. I believe that because the public has said, in the polls, that environmental concerns and wildlife concerns are issues, they will be addressed, and they will be taken seriously by governments. Certainly I can pledge this on behalf of the Government in Saskatchewan, and probably also for governments right across the country.

I have enjoyed having the chance to get a few things off my chest today. I have enjoyed mingling with a lot of you and hearing things from you, because I really believe what you are saying. Now I can go back home and meet with my folks and say, "Look guys, you heard what the NGOs were saying, you heard what wildlife institutes were saying. Now how do we best cooperate to establish a policy for wildlife management in Saskatchewan?"

Panel on integrated management on Crown lands (6)

QUESTIONS ON INTEGRATED MANAGEMENT

Terk Bayly
Chairman
Niagara Escarpment Commission

I want to tell you a little bit about where I come from in this probing business. Like everyone, I watch television, and I have watched those young men and women asking tough questions of people who are experts and responsible for doing things. These men and women always leave me with the impression that they think they know the answers to the questions they are asking, and that they are pretty sure that the person they are interviewing does not. They may be right sometimes, but they are not always right. I have watched people being interviewed who are pretty smart—and I think that Colin Maxwell is one of these—and they do not answer the question asked, but they answer a question that they have in their minds, and they give a very good answer too. Today I heard Colin answer at least three questions that no one had asked him, and he answered them very well.

There is one other thing I would like to say before I start posing my questions. There are a lot of really expert people here. There are a lot of PhDs, university professors, and deans, and they intimidate me a little. The questions that I am going to pose are not aimed at the audience, they are aimed at the panel members. I have not met any of these people—whenever I saw them coming my way today, I turned and went the other way, because I hate cutting up my friends! That may not be what I am going to do, but they may feel that some of my probing questions are a little bit critical.

One thing that no one has done so far today is to define wildlife. Obviously, you all know what wildlife is. I asked Ed Hanna just before the break what wildlife was, and he obviously knows, but he was not able to tell me in words I could understand. I am assuming that wildlife includes every living thing except man.

During the course of the afternoon I have put together four questions for the panel members.

Question #1: Appropriateness of organization for integrated management

I want, first of all, to probe the appropriateness of your organization, that is, the organization for integrated management, whatever that is. All of us, all of you, have been involved with expensive consultants who tell you how to organize. They tell you, after you have paid your money, that the way to organize is to develop your goals and objectives and structure your organization to reflect those goals and objectives. That is very good advice. When I first became the Deputy Minister of Lands and Forests in Ontario, a quarter of a century ago, I reorganized. Talking to some of my old friends here, who are still with what is now called the Ministry of Natural Resources, I hear that they are going into another study of a reorganization, and they have done this on average every three years since I left. This certainly tells you something. They are struggling with the very difficult problem of making their organization reflect their goals and objectives. They have the additional problem, of course, of trying to help their field managers who have the job of making it all work, deal with the problem of how to handle their budgets, and do all the things that the goals and objectives of the Ministry want them to do. My first question to the panel members is, how are you handling this dilemma?

Question #2: Flexibility and time horizon of objectives

Question number two is a two-part question. The first part is, what is the time horizon on which you base your goals and objectives? I was wondering, when I first tried to verbalize that question, what populations you are thinking about, and I mean first of all populations of people. I come from southern Ontario, and I work in an area called the Niagara Escarpment, where the explosive increase in population is causing quite a severe problem of planning and administration of the plan.

The second part of my question about planning, which indicates something that I think you will have to take into consideration when you are contemplating your long-range goals and objectives, is, how flexible are your plans? When I was a small boy, my father took me out to see an area called the Vivian Forest. It was later called York County Forest and is now probably called York Region Forest, and it is about 30 or 40 miles north of Toronto on the blow sands of the Oak Ridges moraine. The people who had the responsibility of doing something about this forest were then called, I think, the Ontario Forestry Branch. The county had bought several thousand acres of land for a very low price, well under $10 an acre. It is probably worth $10 000 an acre now, at least. The objective was to plant conifers, mostly pines, in pure stands, in order to stabilize the blow sand as well as to make money some day. I had something to do with that when I was first employed by Lands and Forests in the mid-1940s, and in those days the pine plantations were coming along just fine. But after that I did not have that much to do with them.

Talking to some of the Ministry of Natural Resources people in the last few days, I find that my old friend, the late Dr. Doug Clarke, used to call the forest a biological desert, because it grew nothing but pine trees. However, it has, all of a sudden, become a simply great place. The pine trees are not very good, but the roads and the fire guards are being used by joggers and horseback riders and bicyclists and people just going birding. There are a couple of ponds that are stocked with trout. They are being used for trout fishing, and the horses are ridden into the ponds to cool them off or teach them to swim. This is not very good for the fishing, but people are having a wonderful time using the forest for recreational purposes that were never envisaged. Doug Clarke said it was a biological desert, but quite by accident it had become something quite different. It had becomne a recreational place.

I think it was about 1946 or 1947 when I went down to Michigan to see Dr. Dow V. Baxter. He was a forest pathologist, and he answered a difficult question. The question was, "Dr. Baxter, how do you get hardwood plantation or hardwood stands on blow sand?" He said, "It is easy. You plant scotch pine." You all know now that this is quite reasonable and sensible, but I had not thought of it. Vivian Forest is the proof of the pudding. It is becoming, gradually, a hardwood forest, because the coniferous plantations are not doing very well and the hardwoods are seeding in.

So, my two-part question is, what is the time horizon of your objectives, and how flexible are you? Are you prepared for the total change in the social scene, for one thing, that you are likely to be faced with in Newfoundland and everywhere else? I hope you are, and I hope that your time objective is long enough.

Question #3: Management of forests vs. land

My third question is, in your management, are you really managing forests or land? Now I know that some of you are just managing forest or just managing trees. Some of you are not, and I think some of you are clearly managing things other than the trees. Some of you are doing both. Al Stewart, the Regional Director of the Algonquin Forest Region in the Province of Ontario, is going to make a presentation to each of the three workshops tomorrow. He is in charge of a program that I think he sees as a deer management program integrated with the management of the mixed hardwood coniferous forests--maple, yellow birth, and white pine in the Algonquin Region.

Al will probably tell you how much the marketing costs. Evidently this is good for the deer, but it is also good for management of this kind of forest. I do have a question, which I suppose I am posing to the panel members. What other objectives should there be in the Algonquin Park picture, in the Algonquin Forest Region picture? Are those the only objectives that Al Stewart should be addressing?

Question #4: Public involvement in integrated management

I will now go to question number four, and this I have left to last because, after listening to the discussions today and some of the questions that were asked this morning, I am convinced that this is the really important question. Do you involve the public in your integrated management planning, in your management activities, in your monitoring of compliance, in the development of your goals and objectives, and in your strategies? Do you give the public access to your planning documents and your compliance results, or do you say, as we used to say when I was a young civil servant: "Keep out of our hair." I am sure that is changed now, but are you doing enough to involve the public? I have heard questions here today about how do you get the politicians, the people who really are going to carry the can for the legislation, to do what has to be done? Well, my question, "how do you involve the public?," leads right to that. You should involve the public if you are going to make an impression on the politicians who are going to pass the legislation that gets things done.

QUESTIONS ON LAND MANAGEMENT

Stew Weldon
Woodlands Manager
Corner Brook Pulp and Paper Limited

I have a background in forest management. I have worked in Newfoundland for 22 years. I know a lot of the local Wildlife people here and deal with them from time to time. What I would like to do first is give you a little background on the forest industry in Newfoundland, because it is one topic I could discuss today that has not already been referenced.

Much of the island of Newfoundland, outside the Avalon Peninsula, is under long-term licence and/or a fee simple ownership of the two forest industries. Abitibi Price and its predecessors have been on the island since 1907 when they built a mill at Grand Falls. Corner Brook Pulp and Paper Limited, a subsidiary of Kruger Inc. of Montreal, and its predecessor, Bowater Newfoundland Limited, have had licences and freehold since 1923 when they first started the mill in Corner Brook.

On the island of Newfoundland, the productive gross forest land equals 35% of the total land base; commercial softwoods represent about 30.6% of that total; operable softwoods, 28%; and actual harvest would probably be in the order of 23% or 25%, when you take out of that areas that the pine marten occupies and other such related areas.

Kruger limits for their mill at Corner Brook are quite large, as are Abitibi limits for their mills at Grand Falls and Stephenville. Our limits currently involve some 6.5 million acres, of which only 25% is freehold, and of which around 35% actually grows productive commercial forest. The geography we have in Newfoundland and the ratio of productive land versus nonproductive land from a commercial forest point of view provide a different set of problems and circumstances than would be the case in New Brunswick and some other provinces where the forest land is more or less continuous. I worked on the budworm spray program in New Brunswick for five summers while at the University of New Brunswick, and I have since wished we had the same kind of forest to work with here in Newfoundland.

Our annual allowable cut (AAC) for Newfoundland, for the area that we control and manage, is almost identical to the annual requirement for the mill. Using the provincial Geographical Information System (GIS) inventory data and the latest company Council of Forest Industries (CFI) inventory statistics, our limits are providing about 1 150 000 solid (cubic) metres of softwood fibre annually, and that is about what the mill will consume after it is fully modernized. This is some background on the area of forestry that I am involved with.

With respect to the question of integration, I would have to agree that there is integration, but probably with a limited amount of planning and management. For example, on the limits that we control, both the 25% private and the 75% Crown licence that expire in 2037, we have sort of an "open gate" policy now. This is more than we ever had before. It was slow in coming, but we are getting there, and it is almost entirely open now, except in the spring and fall when we have soft roads or when we have a security problem. There is hunting on our limits, trapping, fishing, Ducks Unlimited projects, camping, mining, recreational cottages, domestic firewood and sawmill harvest, berry picking, canoeing, and other general recreation-type activities. All these endeavours have the same access on our freehold as they have on our licensed land. I guess another form of integration is that, in addition to the indigenous species of Newfoundland, a number of additional species have been introduced over the last 100 years. One of the earlier introductions to Newfoundland was the snowshoe hare in the late 1800s. Since that time, we have had a number of other introductions. Most have been successful but not necessarily beneficial—the white pine blister rust, moose, mink, shrew, Ruffed and Spruce grouse, spruce budworm, red squirrel, chipmunk, and, most recently, the coyote. I mention these introductions because I think it is interesting for anyone who is outside of the province to know of those introductions that are related to integration and land management. Three species that have become extinct on the island since the arrival of the white man are the Beothic Indian, the Great Auk, and the wolf.

I have seven prober questions. They are more of a local interest, not so philosophical, and narrower in scope than the questions of Terk Bayly. They have to be because I have a greater knowledge of the wildlife situation in Newfoundland than in the rest of Canada, although I did attend a couple of wildlife courses with Jim Walker while we were both at the University of New Brunswick in about 1965–67.

Probe #1: Combined ministries

Could greater benefits be achieved in Newfoundland relative to wildlife if Forestry, Wildlife, and Lands were under one Ministry, e.g., the Ministry of Natural Resources? We currently have Forestry and Agriculture in one department, and we have Wildlife and Lands under the umbrella of Environment. There are good points about that, but there are also counterproductive points in having them separate. I believe if they are all in one arena, then we could probably achieve more and better results. Colin Maxwell described the situation in Saskatchewan with respect to combined ministries in his presentation.

Probe #2: Combined enforcement group

Would it benefit all sectors of natural resource management if we had a combined enforcement group? This would probably be more beneficial in Newfoundland than in the rest of Canada. In Newfoundland we have the provincial Wildlife Branch, the federal Fisheries, and the RCMP providing enforcement. I guess the provincial Forest Service could provide additional support to such an amalgamation. I have listened to people from each of these enforcement groups discuss this matter. Individually, these agencies do not gel very well to the greater benefit of the total resource. I think that they should combine their efforts in some way and remove the barriers between them. We would have joint technical, educational, and legal skills and training possibilities that are not there now, and we would realize the much-needed efficiency and results from such an enforcement effort.

Probe #3: Control and management of ATV activities

Should there be greater control and better management of all-terrain vehicle (ATV) activities in Newfoundland? I think better control of this activity is very much needed, particularly in wilderness areas and those areas of heavy concentrations of big game, especially in the winter and on early spring calving grounds of the caribou. Three years ago I phoned the Wildlife Department and asked if I could get a permit to take my skidoo, with three other fellows, through the wilderness area to the south coast of Newfoundland. I was surprised to have the fellow tell me that a permit was not required. What surprised me—and Jim Inder will probably correct me if I am wrong—is that I thought that when that wilderness area was established a few years ago, there were going to be restrictive activities there, particularly in the wintertime with ATVs, but that never happened. I think in Newfoundland there is definitely a need to have some kind of control over the use of ATVs in certain sensitive areas.

Probe #4: Cabin development on Crown and fee simple lands

We have another problem in Newfoundland that, in my opinion, has been more severe here than in any other province. We have what I consider indiscriminate and illegal cabin development on Crown lands and on fee simple lands, and they are poorly planned and managed, even in some of the legal cases. Even when they are legal, is there enough input by the Department of Health to ensure that there are adequate septic systems, etc., to protect against unnecessary pollution?

Probe #5: Responsibility for forest access road development

Should all the prime beneficiaries of the land, such as Forestry, Wildlife, Mining, and Tourism, share in the cost of the very expensive forest access road development in Newfoundland, or should the burden be carried entirely by the forest industry, as is currently the case? Each year, in the limits that we operate on, we build approximately $3.5 million worth of capital roads, and $2 million are spent on extraction roads, short-term roads, and the maintenance of roads. I think we have built around 65-70 miles of capital road per year in the last 10 years. The reason we are building so much road is that we have such a low percentage of our limits that is productive. We are building roads across an area that is 65% nonproductive. Competitively with the rest of the forest industry, we have probably the highest road cost per unit of wood cut anywhere in Canada. It irks me at times when we have to spend all this money on the roads, while Tourism, Wildlife, and all these other users benefit but do not pay anything for it.

Probe #6: Management of habitat for production of eider ducks

My next question deals with an opportunity to manage a large area of habitat for the production of eider ducks. My question may imply that there is nothing being done with eiders, when a limited amount of work has been carried out in the last couple of years through the joint efforts of Ducks Unlimited, the province, and some other agencies. However, my question is, should the province's islands around the shores of Labrador and Newfoundland continue to be unmanaged for the maximum possible numbers of gulls, foxes, and mink, or should there be a greater effort to manage these islands for the production and rehabilitation of indigenous species of eiders close to their natural levels of the past, before the disruptive activities of man?; and should this be taking place on a much larger scale and faster than currently is the case?

It is my understanding that the habitat for eider ducks around Newfoundland is currently lying fallow. For example, the shoals that surround the Offer Wadham

Islands (east of Fogo Island) could carry a large local population of eiders. There are only about 1200 pairs in total currently breeding on the islands around Newfoundland, and it is my understanding that the habitat of the coastal islands of Newfoundland could support up to 100 000 pairs of nesting eiders. It is also my understanding that this could happen without detriment to other seabird populations, e.g., puffins, kittiwakes, and murres.

A friend of mine was so concerned about the problem of gull predation that about 10 years ago he went out to the Penman Islands, northeast of Musgrave Harbour, to carry out a form of maverick management. He and a friend first took some of the gulls' eggs from their nests and broke them. When they went back about three weeks later, they found that the gulls had laid eggs in their nests again. So he and his friend started boiling the eggs and putting them back in the nest. The parent gull would try to incubate the boiled eggs with no successful hatchings. The gull population on these particular islands decreased over the next few years, and the eider ducks correspondingly increased in population. My friend is also concerned about oil spills and the number of seabirds that he is noticing now with oil in their plumage.

Probe #7: Ptarmigan population levels

Are the prolonged low population levels of ptarmigan on the island of Newfoundland due to poor land management, poor harvest management, or their natural cycle, or all three?

I would like to thank whoever proposed that I come to this conference. I was most impressed with the quality of the papers given here today, and I feel I will benefit from the exposure.

RESPONSE TO PROBERS' QUESTIONS

Gordon Baskerville (Dean of Forestry, University of New Brunswick): It seems to me that there is at least one question posed by the two probers that is common, in the sense of appropriateness of organization--do we have the institutional or organizational structure appropriate for integrated management? The question, I think, was, the way Stew Weldon posed it, would it be better to combine the game management elements? The question is essentially the same, do we have appropriate structures? Does anybody want to comment on that?

Colin Maxwell (Minister, Saskatchewan Department of Parks, Recreation and Culture): From a Saskatchewan point of view, yes we do, because we worked at setting up the current situation whereby we have all those particular branches under one division called the Renewable Resources Division. I outlined the five of them already. This brings in another question on enforcement. We also have enforcement through the Operations Division, which handles all of the enforcement for all five of those branches, including issuing land-use permits. I cannot comment on what is happening in other provinces. A lot depends on the Minister in power. If the Minister in charge of a department is afraid to exert some pressure to bring these things together, he does not deserve to have a department, in my opinion.

Jim Inder (Assistant Deputy Minister, Parks, Recreation and Wildlife, Newfoundland Department of Environment and Lands): I think there are a lot of combinations and permutations of resource departments across Canada. I made a list even before either of these gentlemen asked the question, because we are looking at this as an ongoing process in any resource agency. For a while, we almost had Stew's perfect department--we went through two changes in three weeks. I think the bottom line is that you can come up with a lot of pros and cons, and it is usually decided at a political level. If the Interdepartmental Land Use Committee, which I discussed earlier, could be expanded to include public participation, it would probably be the best situation, because no one department will cover off all the things that are probably necessary in integrated resource management today.

Jim Walker (Director, British Columbia Wildlife Branch): I think it depends on whether or not you have one organization; if all the principals in it are committed equally to the concept of integrated management, it will probably work. But, things being the way they are in Canada or any other jurisdiction today, if the intention is simply to put the Ministry of the Environment in with the other departments to keep them quiet, then that is a different story, because sometimes you are better off out on your own where you can be an open advocate for the environment. I am always afraid of the mouse and the elephant syndrome, whereby a small Ministry of the Environment gets put into a big Ministry of Renewable Resources, and the top leaders in the civil service might, as civil servants are prone to do, want only one position to come out the end. If you have a total commitment to integrated resource management, the bigger Ministry will work; if you do not have that, if it is simply a means to try to silence smaller organizations, then it will be fraught with difficulty.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): The issue seems to be that whatever you have got, it has to be well defined so that at least the interfaces are clear. Is that what you are saying, Jim?

Jim Walker (Director, British Columbia Wildlife Branch): I certainly do not agree that right now across Canada you can take a bunch of different resource agencies and say that they are all committed to the same level of integrated management. If the small organization that is committed gets put in with a big organization that is not, it is not necessarily going to wind up with a better situation for resource management.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): The second issue that I found of interest was the issue of time--what time horizon do we use for this sort of thing? That makes a huge difference in the way we build structures and the way we even think about regulation and determine management. Does anybody want to comment on the issue of time horizon?

Jim Walker (Director, British Columbia Wildlife Branch): I think that if the main requirement of the organization is, as ours is, to maintain the diversity of wildlife species, that is a goal that has no time horizon. That is something that you are trying to do in perpetuity. If you put a time horizon on it, you have to admit that you have lost the game, because then it is only a rear-guard action. However, if you are making plans to try to deliver that goal, then I think, within government, you are unrealistic to plan in terms of any more than 10-year intervals at the very most, because government changes and the bureaucrat has to do whatever the policy direction from government is. As I mentioned in my speech, what we have done is put together three three-year plans, which, rolled up together, make one 10-year plan, and we will revise it every three years. I think that is probably fairly realistic in terms of trying to define some goals and objectives that may have to change. In wildlife agencies right across the country, there are really good examples of how some goals and objectives have had to change. In British Columbia, one of the major goals I mentioned before was simply to promote recreational and commercial hunting, and we certainly had a lot of input from the public that they are no longer satisfied with that solely as a main goal. We have to expand that to include things like wildlife viewing, nonconsumptive use, appreciative use of wildlife. We have broadened the program to incorporate these. I think that you could do that in about a three-year planning interval. In my experience, that is about the right time frame you should be planning for.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): Colin, I would be interested in your view on that. Politicians are the ones that are normally accused of having short time horizons. What would you answer to that?

Colin Maxwell (Minister, Saskatchewan Department of Parks, Recreation and Culture): Governments do not tend to be leaders. They tend to react when the problem comes in, when something becomes an issue. I agree exactly with what Jim Walker was saying about time length. You are fighting a rear-guard action if you are looking at a particular time horizon.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): We did a study once, using a scientific approach to get the right time horizon. We found that if you wanted to know what the time horizon of a person is, all you have to do is find out how many payments he has left on his car. That really disturbed me; here we are trying to manage something where decades at minimum are reasonable, if not centuries, and we are dealing with a population whose built-in time horizon has to do with how many payments are left on their automobiles.

Do you gentlemen have any issues that you want to raise here?

Jim Walker (Director, British Columbia Wildlife Branch): I do not think it is a question of time horizons when you are setting goals and objectives. I think it is a question of the types of assumptions you set. For example, if you look 10 years down the road at what is going to happen in Canada, maybe you should not ask where do we have to be in 10 years, but are people's attitudes going to change? Is the rate of development going to change? What is going to happen to the world economy? Set a couple of assumptions that can guide you in the planning. I think that gives you more useful parameters than to say that we need something for three years, five years, or whatever. I know when we sat down to do our little exercise, we said we think that while this current move toward the environment is going to make some change, it is not going to make a major change in Canada. We think that development will pretty well proceed as it has. We think that there will probably be more conscience money--I hate to use that phrase, but it is probably the most illustrative one I can use--for the environment, but there probably will not be any major changes in people's attitudes, especially the government's attitude towards the environment. I think when you set goals and objectives as opposed to time frames, it is more important to set out some assumptions that you think you can defend.

Jim Inder (Assistant Deputy Minister, Parks, Recreation and Wildlife, Newfoundland Department of Environment and Lands): Stew asked quite a few questions peculiar to Newfoundland, and I do not think we want to spend a lot of time going into all the details. I would like to offer the suggestion to him that I am willing to meet with him at any time to discuss some of these in more detail, because they are mostly related to wildlife management and the environmental problems here on the Island.

He also talked briefly about a combined enforcement group. Colin Maxwell has mentioned already that they have that in Saskatchewan. They have it in a lot of provinces in Canada. We are, I guess, a little different here in Newfoundland, in that we deal solely with wildlife in our particular division. We do not even deal with inland fisheries, either research and management or enforcement. I think there are some positive aspects to all that combination, although I feel that, in the last 25 or 30 years that I have been involved with research and management and wildlife here in Newfoundland, because we have a much narrower scope, we have done probably a little better job on that particular aspect.

You always run the risk in a situation like this of some things slipping through the cracks, and Stew referred to things like ATVs. I think that is one of the areas here in this province now that is slipping through the cracks, and we are not promoting the proper education or the proper control with regard to protection of our environment. It is an area that I know has been discussed politically in the last few months here. It remains to be seen which way our political masters or our political friends will be deciding to go in the near future. I think the important thing in a lot of this is the attitude and what we do to educate the public. Enforcement is a nice tool, but the main club should not always be a two-by-four. We put a lot of emphasis in recent years on education in terms of our enforcement officers going into the schools, actually teaching part of the Grade 11 curriculum in environmental science and that sort of thing. I will be only too glad to take these points up with you a little further, Stew, when we have more time.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): The issue of ATVs and that sort of thing relates to this whole business of how we choose objectives, which was a question that was raised as well. If you do not pick an objective, you wander; if you do pick an objective, you put blinders on. You have narrowed down the focus of where you are going. No one had as an objective 15 years ago how to design wilderness with respect to penetration by ATVs, because ATVs did not exist then. To what extent do you gentlemen think that we deal adequately with changing objectives, because we are clearly dealing with a dynamic system, as we learn more about it. Does anybody want to comment on that?

Jim Walker (Director, British Columbia Wildlife Branch): I do not think we deal with it very well. It is an opportunity to get our own house in order. Governments are set up largely as Colin Maxwell said--to react. I think what we try to do, and I can speak only for our own jurisdiction, is wait around until a problem develops. With respect to access, I have a lot of those problems on my desk right now, either ATVs or illegal guiding. We have simply waited around until the problem compounds itself, and then what we try to do is readdress the objectives or come up with some type of bandaid approach to try to deal with it. I do not think a lot of the objectives are flexible enough, and I do not think we react fast enough. We should be more into proactive planning. We make a big thing about it in government, but we do not do that much--we still largely react, with the result that the objectives are forced on us.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): Colin Maxwell, again because you come from the political side of the house, I would be interested in a comment on that same issue--the degree to which you dare specify objectives and try to lead the public, as opposed to see what emerges.

Colin Maxwell (Minister, Saskatchewan Department of Parks, Recreation and Culture): Lying on my desk is an evaluation form for my Deputy Minister that I have to fill out within the next week and send back to the Premier. The very first set of questions relates to how well he has lived up to or accomplished the goals and objectives we set at the beginning of the year. In our system, the deputy ministers and ministers sit down and set goals and objectives for the departments every year. We put them in writing and then we judge each other. My department judges me by my conduct in public and by how well we have achieved the objectives that we set out for the department. I have always stressed the importance of setting clearly defined goals and objectives, and we do it within the department for every branch. The Deputy Minister does it with the ADM, the ADMs do it with directors, and so on down the line. By the end of the year, each evaluation to a large extent is based on how well we have achieved what we set out to do. I believe quite strongly in it. I think we do a reasonably good job, although there is always room for improvement.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): But your point is that you believe government to be essentially reactive and that the steps are one year?

Colin Maxwell (Minister, Saskatchewan Department of Parks, Recreation and Culture): You try to anticipate the problems if you are going to introduce a program. You can introduce a program, let's say in wildlife, because you have the interest of ungulates at heart. Then you realize that you have not consulted with a group of people. An example, in Saskatchewan, is logging roads. We have thousands and thousands of miles of logging roads all over the commercial forest. As you know, the moose like to come out and wander up and down the roads. So, there is an inordinately large kill rate on those kinds of roads, because the hunting is easy. You also get people night hunting and jacklighting and four-wheel drives and everything else on those kinds of roads. So, we closed them down with bulldozers when the roads were no longer used for logging. I did not anticipate the hue and cry that came out of this from the handful of people affected in the areas where the roads were closed. Hugh Hunt ended up on live television one night defending this program and trying to explain why we were doing it. So, we learned a lesson from that. We introduced a program that we thought was going to be good for wildlife. We forgot about the people who are involved. Then we had to go around to every chapter of the Wildlife Federation in the impacted areas and meet with the members.

We learned a lesson after that! We do not make changes now. I said we react, and we do. We reacted because we had a need to protect the moose population. So, we reacted to it. Sometimes it is a reaction to something people bring forward to us, but it tends to be that way. If you get too far ahead of the folks, you get in trouble.

We now hold public hearings, and we do our best to explain why we want to make changes. The Critical Wildlife Habitat Protection Act is a case in point. My Wildlife Department, plus anybody else we could muster, visited personally with every affected lessee so that we could convince them to voluntarily get into the program rather than unilaterally impose it upon them. We did the same in the area affected by the North American Waterfowl Management Plan. With the Road Corridor Program, we do not allow anyone to shoot within a quarter of a mile of either side of a road anywhere, so that they have to get out and walk through the bush before they can shoot. We went to the Wildlife Federation with that one, got their support, and then it was much easier to sell to the public.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): There is clearly a need for some balance between what Jim Walker has said--where you need to be looking for the problems that are going to emerge and try to see them in advance and plan and have objectives that have some consistency over time and still recognize that you have got to get them to the top of the political agenda—and what Colin Maxwell has said about reacting. With respect to the question of whether or not you involve the public—it seems to me it is not a question of do you, it is how do you. In fact, if you look at the questions that Stew Weldon raised, they are all issues of "Why wasn't I asked?" Do any of you want to comment on the issue of how you should involve the public in terms of discovering what we should be doing?

Jim Walker (Director, British Columbia Wildlife Branch): I think that, in terms of controversial issues, there is certainly a need to involve the public. In British

Columbia, you have probably heard about a thing called wolf control. We have a public group that we look upon as an advisory group to give us some public advice on this. We also have to go to the public for advice on policy development. One of our main reasons for putting together a 10-year plan for British Columbia was to go to the public and say, "What do you think about the direction of this program for the next 10 years?; we would like to have your comments back." However, we have to draw the line somewhere, because, as I mentioned in my talk, we have 20 000 resource referrals, all of which impinge upon somebody's back door. We have 202 environmental groups. Who do you invite, and which meetings do you invite them to?

I think somewhere along the line you have to look back at the whole concept of government and why there is a civil service. I do not mean this to be simply cut and dried, but we were hired to manage the wildlife resource. To some degree, I think, wildlife managers have to do that. Now where there is a controversial aspect, one would be a fool to disregard the public input. Where you are changing policy or where there is a chance for the public to see where their dollars are going to be spent, then they should have that opportunity. But on every single cutting plan in British Columbia, or every single control program or hunting season, we do not expect to have public input. I have professional people that the government hired to make those decisions on our behalf and on your behalf.

Jim Inder (Assistant Deputy Minister, Parks, Recreation and Wildlife, Newfoundland Department of Environment and Lands): I have always had a problem in this area, in that if you deal with the public on a one-to-one basis on something as emotional as wildlife management and especially hunting and fishing here in this province, you get so many different views that it is almost impossible to make any kind of compromise. It gets back to what Jim Walker is saying—we have the ultimate responsibility as government to manage the various resources. I think where we have fallen down in a lot of areas is not getting the public's viewpoint in any kind of organized way. When I look around our departments, I see that we have the basic knowledge to manage the various disciplines that we have, whether it is wildlife or whatever, as a unit. But we miss the public input, in terms of what they, as a whole, think of any particular development.

We partly depend on the politicians for that public input. They are supposed to reflect the public's interests—their views, their wants, and their needs. I sometimes think that there is too much of a delay action in that—by the time they find out, they are in the Opposition! It is too late to really inform us, on a formal basis, as a politician to bureaucrat. We do have various processes here in the province, in particular things like wilderness and ecological reserves, which are quite sensitive, of course. The larger the area you get involved with taking out of circulation, the more interested the public is. We have a long-standing tradition here among our hunters and our people interested in wildlife. They like to do as they please, wherever they please, whenever they please! "I don't care what kind of regulation you make, it is great as long as it doesn't affect me." It is very difficult to satisfy the individual wishes of the public. I think what we need here in this province, in particular, is probably a little more organization at the provincial level to get some well-thought-out suggestions, comments, and ideas to those of us who have the ultimate responsibility to manage these resources.

Gordon Baskerville (Dean of Forestry, University of New Brunswick): To wind up, I want to relay an anecdote that just occurred to me. When I was working with the

Minister, the deer seasons were set for New Brunswick by six or seven different regions. The opening dates were different because the wildlife biologist had used a model. I was hired to introduce models in the design system, and the wildlife biologist determined the opening dates so that they related to the probability of there being snow on the ground and, therefore, the probability of a buck being taken. He went to caucus to see whether or not this was going to become a law. I was sitting minding my own business at home in the middle of the night when the Minister phoned and said that he was outside the caucus room and there was a huge argument going on because the folks in Tobik had just discovered that the hunters from Saint Quinten were going to come down and shoot their deer because the season opened a week earlier in Tobik than it did in Saint Quinten. We had quite a long discussion. I explained to him that there was a biological reason in terms of management of the deer, and that was why we did it that way. He said he would go back in to caucus and try to explain it. About half an hour later, he phoned again and said, "This isn't going to work, at least the opening day is going to have to be the same in all of these areas, because it just isn't going to wash with the people any other way." I came in the next morning to discover that I had lost. The deer seasons fit the people rather than the biology. But that is reality!

I would like to thank the panelists for their presentations and the probers for posing questions. Are there any issues that need to be raised from the organizers?

Stew Weldon (Woodlands Manager, Corner Brook Pulp and Paper): I would like to compliment the Newfoundland Wildlife Division. In the 22 years I have been here, they have done really good work with management of moose, caribou, and a couple of other species. I think that hunting moose in Newfoundland must be the envy of a lot of other provinces in Canada. The populations of both of those species seem to grow. In particular, I think they developed a very good system of allowing licences and seasons and that sort of thing.

CASE STUDY ON THE "CHALLENGE OF IMPLEMENTING WILDLIFE HABITAT OBJECTIVES INTO FOREST MANAGEMENT PROGRAMS: NEW BRUNSWICK"

Jeffrey Patch
Director of Wildlife Management
Fish and Wildlife Branch
New Brunswick Department of Natural Resources and Energy

A report on this case study was not available at the time of publication of these proceedings.

WILDLIFE HABITAT IN MANAGED FORESTS: WHAT TO THINK ABOUT WHILE CHOPPING*

Jack Ward Thomas
Evelyn L. Bell
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> I have read many definitions of what is a conservationist and written not a few myself, but I suspect that the best one is written not with a pen, but with an axe. It is a matter of what a man thinks about while chopping, or deciding what to chop. A conservationist is one who is humbly aware that with each stroke he is writing his signature on the face of the land. Signatures of course differ, whether written with axe or pen, and this is as it should be. (Leopold 1949)

Even after land is allocated to wilderness, parks and other designations that preclude manipulation of the forest, the vast majority of forest lands in the intermountain West will sooner or later be managed. The euphemism "managed" refers to forests manipulated to produce an array of products; it includes cutting trees, regenerating forest stands--naturally and by replanting--tending stands and harvesting trees.

Silviculture and attendant road systems are the primary factors that influence wildlife habitat in the managed forest. All wildlife is a product of habitat, and silviculturists who prescribe how, when, where and which silvicultural practices will be applied are the most significant managers of forest habitat (Giles 1962, Bunnell 1976, Thomas 1979). If multiple use is a guiding management principle, wildlife habitat is a byproduct of timber management in most managed forests.

Silviculturists influence--that is, produce or destroy--wildlife habitat with each silvicultural treatment. They prescribe stand treatments with a stated idea of what the plant community's response will be, and tree response has been the traditional focus when deciding what and how to chop. The biggest opportunity for wildlife management in the managed forest is to include wildlife habitat in what the silviculturists think about while deciding to chop. Which wildlife habitats are considered by silviculturists and wildlife biologists are usually dictated by the landowner's objectives; in publicly owned forests, these objectives are loosely prescribed by law and are turned into specific objectives through land-use planning.

After wildlife objectives are determined, silviculturists and wildlife biologists should form a team to achieve both timber and wildlife objectives. Wildlife biologists must be ready to seize this opportunity, remembering that in managed forests the question is not _if_ the forest will be manipulated to produce a mix of products, but how these manipulations will take place. It is in the "how" that opportunities for wildlife management lie.*

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* Reprinted by permission from Proceedings--Future Forests of the Mountain West: A Stand Culture Symposium. U.S. Forest Service, Intermountain Research Station. General Technical Report 243: 42-47 (1988).

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Stripped to its basics, silviculture is comprised of several stand attributes that can be manipulated to achieve various results--in this case, wood production and wildlife habitat. Foremost among these attributes are stand size, configuration, density, spatial arrangement and preparation and species composition, canopy closure, tree size, growth rate, snags and timing of treatments. Silvicultural treatments are considered and applied on a site-by-site or stand-by-stand basis. This can be described as microsite management. Each treatment is analogous to the ax stroke that Leopold described as the process of writing a signature on the face of the land.

What is now emerging is the recognition that the cumulative effect of these strokes is the landscape that will emerge as the managed forest. At this point, the concept of forest management changes from microsite management to macromanagement. Silvicultural adjustments to achieve both wood production and wildlife habitat are not minor considerations: Repeated year after year in place after place, they will become the dominant force shaping the evolving forest landscape--the signature of the perpetrators (Thomas et al. 1986). An examination of some wildlife objectives in the national forests of Oregon and Washington may give some idea of how silvicultural prescriptions can be modified to meet habitat objectives, how these objectives can be expressed to insure communication and cooperation between silviculturists and wildlife biologists, and how progress can be monitored.

Because of stipulations in the 1976 National Forest Management Act and attendant regulations, the U.S. Forest Service is expected to maintain the diversity of vertebrate wildlife in viable populations well distributed on managed forest land. This objective is clearly stated and has been labeled a requirement for species-richness management (Evans 1974). Available information from the Blue Mountains identifies 378 terrestrial vertebrate wildlife species and their association with successional stages and/or structural conditions of existing plant communities (Thomas et al. 1979a). To achieve the species-richness objective, these plant communities and successional stages must be maintained in relatively close proximity to allow an interchange of animal species among habitats. Some stands must be large enough to contain the territories or home ranges of animals that rely solely or primarily on such habitat.

There is a positive relationship between stand size and the number of species and animals expected to be found there, a ratio called the species-to-area curve. At some point, the increment in the number of species per *additional* unit of area will approach zero; in management, this is the point that can be used to describe the average stand size that meets size requirements for achieving a stated wildlife diversity goal. This average stand size was estimated at 84 acres in the Blue Mountains (Thomas et al. 1979c).

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* Obviously, instituting the necessary teamwork depends on shared information about the relationship between forest wildlife and habitat in different areas. Such information can be found in Patton 1978 (Southwest), Brown 1985a, 1985b (western Oregon and Washington), Thomas 1979 (eastern Oregon and Washington), Verner and Boss 1980 (western Sierra Nevada), Maser and Thomas 1983 (southeastern Oregon), Hoover and Willis 1984 (Colorado) and DeGraaf and Rudis (1986). Information for other areas has been developed but has not yet been published.

Consideration of edge--the meeting point of plant communities or different stand conditions--is also important. Edge is particularly productive of wildlife species that require the habitat conditions on both sides of the edge *and* those adapted to the conditions that exist in the transition zone (Leopold 1933). High contrast between adjoining plant communities or successional stages may increase the number of wildlife species found along edges and in adjoining stands (Thomas et al. 1979b).

The legal requirement that forest managers be concerned with "diversity" is a platitude until it is clearly defined and incorporated in management prescriptions. For example, one forest plan defined the objective for diversity as the maintenance of all existing native vertebrate species in viable numbers over the entire forest. The plan proposed meeting this objective with the following actions. The forest was to be classified into timber types, and five percent of each type was to be maintained in each of six successional stages to insure that all the appropriate forest habitats existed at all times. The distribution of successional stages was to be met in each 3,000- to 15,000-acre recordkeeping unit for appropriate distribution of habitat conditions over the entire forest. Stand sizes were to average 84 acres to account for the home range or territorial requirements of all resident species that were limited by the size of relatively homogeneous habitats. Stands representing each successional stage by plant community were to be located, where possible, within one-half mile of another such stand to offer considerable opportunity for resident species between stands. Similar, very specific requirements were spelled out for edge contrasts between successional stages, the degree of edge per amount of area between managed stands, and the number and size of dead trees.

When objectives are so expressed, the management team knows what is to be achieved and which silvicultural tools can be used. In this case, stand size, condition, juxtaposition, shape and arrangement in time and space are the operative factors. Such criteria can be monitored and thus allow evaluation of how objectives are being met.

* * *

In addition to meeting diversity objectives for wildlife habitat, a silviculture/wildlife team is often given habitat objectives for a single species, a process called featured species management (U.S. Forest Service 1971). The species most commonly singled out for such treatment in the mountain West is the Rocky Mountain elk.

The first attempts to meet elk habitat needs were guidelines to silviculturists, and there were similar behests to road builders and range managers. The most complete guidelines are found in Lyon et al. (1985), which includes some items of particular interest to silviculturists. For example, to insure that forage in clearcuts is available for use by elk, such openings should meet the following criteria:

- Slash cleanup inside clearcuts should reduce average slash depths below 1.5 feet. Slash more than 1.5 feet deep reduces elk use more than 50 percent.

- Openings should be small, although they can be up to 100 acres where the adjacent forest edge supplies adequate security.

- Thinning is not recommended adjacent to clearcuts.

- Road closures can provide additional security, which will significantly increase elk use of clearcut openings.

Such insights are essential tools in management of elk habitat, and they are the stuff from which mathematical models grow. One of the first elk habitat models that received widespread use, attention, evaluation and revision was developed for use in the Blue Mountains (Black et al. 1976, Thomas et al. 1979c).* Lyon et al. (1985) noted that, "Almost without exception, prescriptions for maintaining productive elk habitat now include both the physical components (thermal cover, hiding cover, foraging areas) and some components related to the elk behaviour within the physical environment (cover interspersion, road density, livestock management and traditional use)." The model currently used to evaluate Blue Mountain winter ranges is used here as an example of management criteria for a single species (Thomas et al., in press):

$$HE = (HE_s \times HE_r \times HE_c \times HE_f)^{1/n}$$

where:

HE = overall habitat effectiveness for elk

HE_s = habitat effectiveness as influenced by the density of roads open to vehicular traffic (sic)

HE_r = habitat effectiveness as influenced by the density of roads open to vehicular traffic

HE_c = habitat effectiveness as influenced by cover quality

HE_f = habitat effectiveness as influenced by the interaction of forage quality and quantity

$1/n$ = nth root; suggested by the U.S. Fish and Wildlife Service (1981) as a means of expressing compensation between interacting habitat variables

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* There are now a number of elk-habitat models, each with modifications to suit local conditions and biologists with different experiences and opinions. These include Interagency Study Team 1977 (northern Idaho), Montana Department of Fish and Game and U.S. Forest Service 1977 (central Montana), U.S. Forest Service and Montana Department of Fish and Game (eastern Montana), Leege 1984 (northern Idaho), Lyon et al. 1985 (Bitterroot, Kootenai, Bridger-Teton and other national forests), Wisdom et al. 1986 (western Oregon and Washington) and Thomas et al., in press (eastern Oregon and Washington).

Each of the habitat variables assumes a value between 0.01 and 1 (criteria are described in Thomas et al., in press). Quality is expressed in categories based on stand height and canopy closure. Management objectives for elk habitat can be expressed by the HE value and, if desired, for each component. For example, management objectives could be expressed as: Maintain HE at or above 0.50 with HE_s at or above 0.30, HE_r at or above 0.60, HE_c at or above 0.40 and HE_f at or above 0.50.

The silviculture/wildlife team has (or should have) clear objectives for elk habitat and can identify the silvicultural factors that are the key to obtaining its objectives. Meeting the HE objectives is accomplished by noting the size of regeneration units and the timing and location of regeneration cuts. HE_c objectives are met by maintaining adequate cover in conditions where stands are 40 feet or taller, with canopy closure equal to or more than 70 percent. HE_r reflects the impact of roads per unit of area open to vehicular traffic on elk use in adjacent habitats; this factor can be manipulated with road closures or control of the amount of road construction allowed. Finally, meeting the objectives for HE_f requires that livestock grazing be managed to allow grasses to reach a designated height.

* * *

Communication and cooperation between silviculturists and wildlife biologists and the tools to make wildlife habitat a product of silvicultural treatments are rapidly improving. The opportunity to satisfy both wood production and wildlife habitat objectives is obvious. Land-use planning and resource-allocation efforts by federal land-management agencies have emphasized that pressure will increase in the future to move the multiple-use concept of managed forests from platitudes to reality. Do we--the natural resource professionals charged with "writing our signatures" on the face of the forest--have the will to meet this challenge? The answer will be apparent when the managed forest emerges from its formative chaos.

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Workshops (3)

CASE STUDY ON CANADIAN SUCCESS IN INTEGRATED MANAGEMENT—ALGONQUIN PARK MODEL

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EXCERPTS FROM ALGONQUIN PROVINCIAL PARK MASTER PLAN, 1974

Goals and objectives

Algonquin, the first Provincial Park in Ontario and the forerunner of the over one hundred parks that now make up the provincial park system, is in many respects an historic benchmark. It has played a significant--although not often visible--role in determining management and development policies for other parks in the province. Many management techniques in current use had their origin in Algonquin. This master plan includes additional new management techniques and directions designed to meet both existing and foreseeable recreation and resource demands.

The origins of Algonquin go back before 1893 when the government of the day acted on a recommendation of the Royal Commission on Forest Reservation and National Park in "reserving a portion of the ungranted Crown domain to be set apart as a Forest Reservation and National Park." The report submitted by the Commissioners reflected commendable foresight in all aspects of land management. Forest preservation and conservation, climatic influences, soil, watershed and wildlife protection, recreation, logging and other topics were all discussed in learned language. The Commissioners were visionary in the extent to which they projected the ends to be attained by the reservation or park. These included the "maintenance of water supply in a half dozen major water systems, preservation of a primeval forest, protection of birds and animals, a field for experiments in forestry, a place of health resort, and beneficial effects on climate."

Another important element of the establishment of the Park is that Alexander Kirkwood, one of the Commissioners and the Senior Officer of the Lands Branch of the Department of Crown Lands, intended that forest management would be practised. Kirkwood was very interested in introducing some classical European forest management systems into Ontario.

Another Commissioner, James Dickson, a Provincial Land Surveyor and Inspector of Surveys for the Province, clearly identified the Park area with recreational use. The report of the Commissioners discusses the use of Algonquin as a refuge from city conditions and as a health resort.

Since the original purposes are compatible with more recently expressed interests, then it is reasonable to state that, generally speaking, Algonquin Park serves its original purposes as well as many of the interests currently being expressed by the various elements within society. At the same time, it is acknowledged that until comparatively recent times, a less intensive management system provided for the bulk of the demands on the Park. However, changes in technology, affluence, leisure time and the concern for open space have resulted in user conflicts and tensions. It was this situation that prompted the province to establish mechanisms to re-evaluate the current and projected uses of the Park and identify the goals or expectations of many interest groups.

In 1968, a Provisional Master Plan for the Park was completed and released. Prepared by the staff of the former Department of Lands and Forests under the leadership of T.W. Hueston, at that time the Park Superintendent, its primary objective was to provide a basis for public comment.

Public hearings were held immediately in Pembroke, Huntsville and Toronto. Many submissions, both written and verbal, were presented along with much correspondence from interested individuals.

Subsequently, the Algonquin Park Task Force was appointed. It was comprised of a group of civil servants appointed to study the submissions and to research and document the issues and alternatives.

In 1969, the Algonquin Park Advisory Committee was created. Membership represented the broad range of interests associated with Algonquin Park, in order to incorporate the ideas and thinking of the various interest groups in the evaluation of alternatives and the recommendation of policies.

The Task Force then assumed the additional responsibility of providing technical assistance to the Advisory Committee. An economic impact study and nearly forty background and study papers were prepared by Task Force members and presented to the Advisory Committee.

Commencing in April of 1970, through until July of 1973, the Advisory Committee submitted a total of thirty-six recommendations. As these were received, Ministry staff carried out in-depth analyses of the potential implications and consequences. Ultimately, sufficient input, data and analyses were available to permit thorough consideration by the government. Approval was given and the recommendations provided the basis for the government policy announced for Algonquin Park in July of 1973, and the framework within which this master plan was prepared.

The policies for Algonquin Park announced by the government in July of 1973 were made with the Park being considered within a regional and provincial context. The Park does not exist in a vacuum—it relates to, and is part of, a region bounded by the communities of Pembroke, North Bay, Huntsville and Bancroft. The region is approximately nine thousand square miles or about three times the area of the Park.

Primary forest products manufacturing and tourism are the foundation of employment opportunities for the local people. The Park is dominant in timber production activities within the region. It also acts as a major tourist attraction. Consequently, continuing productivity of the resource base in the Park is important to the Provincial economy and critical to the livelihood of the regional communities.

Algonquin's use by the people of the Province has been growing rapidly. It is projected that use during the next thirty years will increase at about three times the rate of population increase in Ontario. This anticipated demand will be limited by the carrying capacity of the Park itself and can only be met by major additions to facilities and new access routes.

The regional goal describes the role of the Park within the regional framework.

Goal for the region

To maintain the economic base for local communities and to continue to provide Ontario residents with a diversity of recreational opportunities.

The needs of people living within the region are given special emphasis in the regional goal. The need to maintain a suitable level of economic activity in the region is recognized.

It is the objective to provide within the region a variety of recreational experiences. Recreation is defined in its broadest sense to encompass educational and scientific study and activities of psychological and physiological enjoyment. Diversity refers to day use and to overnight opportunities ranging from hotel-motel accommodations to wilderness canoeing and camping. This can be accomplished by a combination of public and private programs.

Recognizing that Algonquin Park has provincial as well as regional implications, the provincial goal for the Park follows:

Goal for Algonquin Park

To provide continuing opportunities for a diversity of low intensity recreational experiences, within the constraint of the contribution of the Park to the economic life of the region.

A low intensity recreational experience requires that there be attractive, unspoiled areas in the Park where visitor density is low and the trappings of modern civilization do not destroy the feeling of a back-to-nature interlude. In essence, Algonquin Park, which is readily accessible to large segments of urban Ontario residents, should be a natural environment where people of average means can escape for a while from the ever increasing pressures of urban living.

Algonquin is a provincial heritage which should be preserved by enlightened environmental management. Among the values contributed to the people of Ontario are: a wilderness recreational environment; a headwater area of clear flowing lakes, rivers and streams; a wide variety of plants and animals; and an environment which has traditionally contributed important resource products to the people of Ontario. The outstanding feature of Algonquin Park is that it places within easy reach of the vast urban populations of northeastern North America a reasonable example of the wilderness that covered this land before it was occupied by Europeans. Even if the present forest is somewhat different from the original, the "feel" of wilderness is still there, and it requires only a little imagination to visualize its primeval state.

Since the establishment of Algonquin Park just over 80 years ago, management policies have aimed at protecting and perpetuating the recreational character of the Park, particularly the lands with unique water-related characteristics in the vicinity of lakes, streams, portages and trails. This policy will be continued. However, in addition, significant natural ecosystems within Algonquin will be perpetuated in as near pristine conditions as possible in representative areas and larger landscape units.

The role of Algonquin within the social and economic fabric of the regional community is defined by the regional goal. Thus, Algonquin will continue to contribute to resource production activities in the region.

The following objectives have been established to achieve both the regional and Park goals:

Regional objectives

(1) To stimulate regional tourism.

Regional tourism can be measured by the number of visitors to the area and the number of dependent industries and jobs. The following tourism policies will apply throughout the region surrounding Algonquin Park:

(a) A series of Provincial Parks will be established which will attract and encourage tourism.

(b) Access corridors to the Algonquin Park perimeter will be developed to encourage the distribution of tourist benefits.

(c) The private sector of the economy, including private campgrounds and resort operators, will be encouraged to participate in a complementary manner in the provision of regional tourist services outside the Park.

(2) To develop an information program which will make tourists fully aware of the variety of recreational opportunities provided by the public and private sectors in the region.

(3) To ensure the flow of forest products throughout the region.

Park objectives

The goal for Algonquin Park gives direction in three major areas. These include: the need to provide a variety of low intensity recreational opportunities, including scientific and educational benefits; the need to provide for a defined level of yield of forest and resource products; and the need to maintain a quality environment. The following major objectives and management policies will direct future planning and management toward the achievement of the Park goal.

Recreation

(1) To provide for quality wilderness recreational opportunities.

Algonquin Provincial Park, the largest canoe-camping park in Ontario, occupies 1 862 500 acres of land and water. Water makes up approximately 15 percent of the area and allows for 1500 miles of canoe routes.

The following major policies will be implemented to ensure achievement of the above objective:

(a) Wilderness areas encompassing 166 500 acres and providing an estimated 100 000 user days of recreation annually will be established. These areas will be managed in a near pristine state to accommodate users seeking to experience the Algonquin environment as it once may have been.

(b) Recreation/resource utilization areas, encompassing 1 527 000 acres and providing an estimated 260 000 user days of recreation annually, will be established. These will be managed for back country activities such as canoeing and hiking. Resource utilization will take place in a discreet manner to ensure the visitor's perception of the natural qualities of the Algonquin landscape.

(c) A total of 28 access and 8 departure points will be located strategically on the perimeter of the Algonquin interior to distribute use throughout the Park and to ensure optimum use of interior recreational opportunities without crowding or congestion.

(d) Intensively developed and amenity-oriented recreational facilities will be located outside the Park.

(e) To ensure the quiet enjoyment of nature within Algonquin Park, the use of snowmobiles and other types of off-road vehicles will be permitted for Park management purposes only. The one exception is on the hydro line service road in Clyde Township, where current snowmobile use will be subject to review.

The use of motor boats will be phased out as soon as possible.

(2) To provide for a variety of extensive recreational activities.

New land travel routes, such as hiking, cross-country skiing and snowshoeing trails, horseback riding trails and, in special locations, scenic roads, will be established. In addition, selected activities such as fishing, historical appreciation and hunting will be managed in a manner which complements the natural qualities of the Park.

The following management policies will be implemented in order to achieve this objective:

(a) Alienated lands within the Park will be acquired or the associated authority permitted to expire. These lands will then be made available for public purposes.

(b) The opportunity for the public to gain an initial appreciation of Algonquin through day visits will continue. Facilities and services will be incorporated for an anticipated 520 000 users annually by 1990. This can be achieved without infringement on the interior. Day use programs will emphasize the natural, educational, scientific and historical aspects of the Park.

(c) Continued provision will be made for car-oriented camping both within and outside of the Park.

Within the Park, only a modest expansion of facilities can be permitted without infringement upon the interior. A maximum of 2000 sites providing for an estimated 500 000 camper days annually will be available within the 115 square mile Algonquin parkway corridor. Current facilities will be redesigned at a lower density and provision made for more walk-in and boat-in sites. Two additional car-oriented camping units of 125 sites at Basin Lake and 250 sites at Stratton Lake will be developed to accommodate existing use patterns. They will act as excellent access areas to the interior and complement interior use patterns, while providing an additional 32 000 camper days annually.

The remainder of the car-oriented camping pressure on Algonquin will be met outside the Park in selected provincial park, private park and resort area developments.

(d) Algonquin Park will be managed to provide for quality angling for native trout species.

The Park is one of the great natural fisheries in Ontario. The fishery will be protected from introductions of undesirable competing species through a ban on use and possession of live bait fish in Park waters.

(e) The Townships of Bruton and Clyde, recent additions at the southern extremity of the Park, will continue to be managed to provide low intensity public hunting opportunities.

The balance of the Park will remain closed to hunting.

Research and education

(1) To provide a Park interpretive program which will orient visitors to Algonquin's special qualities and provide them with an opportunity to gain a deeper understanding of the purpose, environment and history of the Park.

It is intended that every Park visitor be provided with information, orientation and facilities required to enhance his stay.

(2) To establish, as scientific benchmarks, areas preserving Algonquin's representative and unique ecosystems and qualities.

The Park is strategically located in the transition zone between northern and southern ecosystems. This provides a rich diversity of flora and fauna. Natural areas will be designated within the Park and protected to permit the study of their individual qualities.

The plan provides for an estimated 80 000 acres of natural areas.

(3) To protect and manage the historical and cultural resources of Algonquin Park for educational and research purposes.

The plan provides for the protection of some 86 areas totalling 5000 acres. Pending further field research, it may be necessary to expand this area to 7000 acres.

(4) To encourage scientific research which will aid in understanding the Park and its resources.

Resource products

(1) To provide sufficient forest products to sustain dependent industries at current levels of utilization.

The current level of utilization of Park forest products varies from 15 to 17 million cubic feet per annum.

This objective will be implemented by the Algonquin Forestry Authority which will be responsible for harvesting and distributing forest products from the Park to dependent manufacturing centres. The Authority will operate in accordance with management techniques designated in this plan.

(2) To manage the forests of the Park at required levels for forest products, while maintaining aesthetic qualities for recreational purposes.

The master plan provides for the following major policies to implement this objective:

(a) The forest will be managed according to the silvicultural systems developed for the Park.

(b) The Ministry will designate all timber cut for commercial purposes.

(c) Controls will be applied in locating all roads, water and portage crossings.

(d) Special prescriptions and reservations will be employed in maintaining or restoring an undisturbed vegetative appearance in areas viewed by the recreating public.

(3) To limit the harvest of commercial fur within the Park.

Harvesting of furbearers has traditionally taken place in the Townships of Bruton and Clyde and more recently in the eastern part of the Park.

The following management policies will be applied to limit this program:

(a) Trapping in Bruton and Clyde Townships will continue only as long as required by local residents.

(b) Trapping in the eastern part of the Park will be shifted substantially to the east, out of the central lakes region. This will improve access for trappers from the Golden Lake Band.

Environment

The maintenance of a quality environment is the single most significant means of ensuring the quality of recreational and forestry uses of the Park. The following specific objectives have been established for environmental quality:

(1) To maintain the volume and quality of Park waters.

A water management plan will be developed to monitor and control the above-noted factors.

(2) To maintain the variety of Park ecosystems and existing environmental conditions.

The maintenance of representative Park ecosystems will ensure the diversity of species native to the area. Environmental conditions range from the pristine reserves to protected deer yarding areas, to pioneer succession following wildfire, to a variety of managed forest types and stages.

The plan provides for specific management policies for the full range of situations.

(3) To maintain the Park in public ownership and prevent the destruction of its qualities and character through the imposition of incompatible land uses.

The principal policy to achieve this objective is the prohibition of further through highways, utility corridors and installations. Mining will not be permitted within the Park.

(4) To maintain the recreational environment of the Park.

Planning for all forest operations will be approved by the Park administration and be carried out under its direct supervision by the Algonquin Forestry Authority.

Visitor use quotas, as determined under the recreational objectives, will ensure opportunities for experiences in keeping with a quality natural environment.

Zoning

In the case of Algonquin there are two levels of planning: overall and area. The overall plan deals with classification, zoning and management policies in a Park-wide context. The discussion of these topics indicates the means of achieving the broad objectives for the region and the Park. By comparison, the area plans indicate the means of achieving specific objectives for the Algonquin parkway corridor, the interior canoe-camping area and the external perimeter recreation system.

A factor which had to be considered by the government in arriving at a policy decision was the extent to which Algonquin Park represents but one element, albeit an important one, in the provincial parks system. There are one hundred and fifteen operating parks in the system, along with a number of others in various stages of development. Each park has a designation under the park classification system and in total the system provides a diversity of environments and a variety of recreational opportunities.

Classification

Algonquin Provincial Park is designated a natural environment park. It will be planned, zoned and managed in accordance with policies for this class.

Natural environment parks are established primarily to provide a wide variety of non-intensive recreational opportunities within an environment of educational, recreational and scientific significance.

Zoning

Every public interest group has a different philosophy of how the Park should be used. But the characteristics of Algonquin and existing use patterns are such that only a limited flexibility can be allowed without significant loss of Park values. Zoning provides a means of management, administrative and development control that will establish an appropriate balance between acceptable uses and developments which are compatible with the purpose of the Park. Only through zoning is there assurance that long range programs can be designed to meet objectives. There were three principal considerations in zoning Algonquin Park: preservation, visitor use, and forest products supply. Establishment of natural, historic and primitive zones was given priority over access, development and recreation zones. In turn, all of these zone types were given priority over recreation/utilization zones within the limit determined by the current contribution of Park forest products to the region's economy.

The zoning system for Algonquin is as follows:

Natural zones

The meeting of northern and southern ecosystems in transition in the Park is a dominant theme of Algonquin's natural values. In all, 63 natural zones ranging in size from a few to more than 13 000 acres each and totalling 71 730 acres have been established to date in the Park. They are the result of five years of intensive scientific field investigation. Several gaps remain in the natural zone system and these will be closed with the establishment of additional areas after the 1974 and 1975 field seasons. The final system of natural zones will encompass about 80 000 acres of Park land.

The Algonquin natural zone system consists of the following types of components:

Black Spruce-Tamarack Forest and Bogs
Marshes
Hardwood Forests
Hemlock Forest
Red Pine Forest
Red Spruce Forest
Jack Pine Forest
White Pine Forest
Silver Maple Forest
Unique Botanical Areas
Cliffs and Rock Faces
Natural Disturbances
Watersheds

Historic zones

Man's traditional dependence upon the resources of the Park is a dominant theme of Algonquin's historic values. Intensive field and archival investigations over four years have dealt with more than three hundred acres of historic significance and a comparable number of archaeological sites. Continuing field work, study and analysis will complete an historic zone system in two to three years.

A final set of archaeological zones has not yet been established as some upland field studies remain to be conducted. Of the 300 shoreline sites investigated to date, 38 representative or unique sites, or collections of sites, have been set aside to be protected for future study and interpretation. These sites are well distributed through the Park watersheds. They were most frequently campsites which were used by succeeding Indian cultures in much the same way as they are by the interior canoe-campers of today.

Additional field study of post-European contact values needs to be conducted. More than 300 sites have been investigated and future field work will involve the study of the history and architecture of 150 additional sites.

Forty-eight historic zones have been designated. This constitutes an interim proposal pending completion of the historical inventory of the Park. The Algonquin historic zone system consists of the following types of components:

Camboose Camps
Depots and Farms
Lumber Camps
Ranger Cabins
Miscellaneous Historic Sites
Interpretive Sites

These sites range in size from a few to nearly 1000 acres as in the case of the Mowat townsite. In all, more than 5000 acres are currently set aside for historic purposes in 86 areas and soon this may be expanded to about 7000 acres.

Primitive zones

The Algonquin parkway corridor bounds a forty-mile section of Highway 60 that cuts through the southwest corner of the Park dividing the interior into two blocks. The southern block is more than one-quarter million acres; the northern, more than one and one-half million acres.

Two special areas exist in the interior immediately north and south of the parkway corridor. These contain the best natural wilderness areas existing in Southern Ontario because evidence of technological and industrial impact of man is limited and almost non-existent since 1940. As applied to Algonquin Park, this refers specifically to evidence of logging, railways, hydro lines and buildings.

These areas, which were selected on the basis of their being the best natural landscapes in the Park in an ecological sense, have been established as the cores of the primitive zones. To these nuclei have been added adjacent lands in the central lakes region of Algonquin, lands best capable of expanding the Park's recreational wilderness area. The central lakes region, with its numerous large lakes, has greater canoe-camping capability than any other region of the Park. Elimination of logging and the use of motor boats will enhance the wilderness quality of these lands and allow their incorporation within primitive zones. Total area of the northern Algonquin primitive zone is 125 650 acres. The southern zone is 40 850 acres.

Recreation zones

Three recreation zones totalling approximately 80 000 acres have been established in the Park. They include development zones for existing and potential facilities such as campgrounds, interpretive areas and concessions, and some of the interior access zones. Recreation zones also encompass lands used for walking trails, day canoeing areas and other low intensity recreation.

The Algonquin parkway corridor is the largest recreation zone in the Park. It covers more than 73 500 acres, but is not an expansion of the existing Highway 60-oriented recreation area. The two remaining small recreation zones are on the east side of the Park. They provide for access, recreational activities and accommodation that could not be developed through the later-described perimeter park system.

Access zones

Access zones include approximately 2000 acres. They provide a valuable means of designing, controlling and dispersing use of Algonquin in a manner most compatible with the purpose and values of the Park.

The high capacity parkway will remain as the major access area. Interior access will be permitted at ten locations along this corridor.

Eighteen other access points around the boundary of the Park will be linked with the perimeter program. In addition, downstream access from Algonquin will be developed on eight rivers in the perimeter program.

Recreation/utilization zones

The remainder of Algonquin Park, 1 527 000 acres, falls into the recreation/utilization zone category. As the name implies, low intensity recreation has first priority in this zone, to the full extent of the land's recreational capability. This means that the canoe-camping opportunities in Algonquin Park are not influenced quantitatively by forest utilization activities. There are cases, however, where the quality of experience is influenced. Some canoeists are only satisfied by being in the true or pure wilderness situation found in primitive zones. This means the complete absence of observed evidence of modern civilization, as well as the knowledge that such evidence does not exist in the general area in which they canoe. Both the actual observation and the mental perception of wilderness characteristics are important to this segment of the canoeist population.

Another group is satisfied with canoeing through an area where there is little or no evidence of civilization or logging. If there is neither sight nor sound of civilization on the canoe route, the experience for the group is satisfactory.

The basic principle in recreation/utilization zones is to separate as much as possible the activities of forest management, harvesting and associated construction of interior roads from the sight and sound of interior recreationists. This has been successfully accomplished by the strategy for management of the interior. Thus, more than 70 000 acres of areas are reserved from cutting along public roads, portages, the Canadian National Railway right-of-way, the Park boundary and all waters in the Park. Within recreation/utilization zones, there are also 61 500 acres of winter yarding areas that are managed to the advantage of white-tailed deer as well as for the production of timber. The remaining area, while available for visitor use, has significantly lower activity potential than the recreational reserves.

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EXCERPTS FROM ALGONQUIN FORESTRY AUTHORITY TWELFTH ANNUAL REPORT, 1986-1987

Introduction

Logging originated around 1840 in the area which subsequently became Algonquin Park. Logging, one of the multiple uses to which the Park was dedicated in 1893, has continued to the present.

The Ontario Government established the Algonquin Forestry Authority on January 4, 1975, in response to public concern for the most beneficial means of maintaining a multiple-use approach in Algonquin Provincial Park.

The Authority operates in conformity with the Algonquin Provincial Park Master Plan and the Forest Management Plan for Algonquin Provincial Park, successfully applying the principles of integrated resource management. The public interest in the quality of the Park for recreation is balanced with the need to maintain an adequate supply of logs to mills dependent on Park timber.[1]

The forest industry supplied by Algonquin Park timber comprises ten sawmills, three veneer mills, one pole plant, one pulp mill and one match splint mill which are wholly or partly dependent on this vital source of raw material. Direct contribution by Algonquin logging and primary manufacturing to the Ontario economy was $51 million in terms of 1985 value added.[2]

Goals and objectives

The goal of forest management in Algonquin Park is:

To produce a continuous supply of forest products to the forest industry of the region in harmony with other uses and in a way that preserves other values.

To accomplish this goal, the following objectives have been established:

1. To manage and upgrade the quality of the forest to insure the long term needs of local industry.

2. To effectively utilize the range of products that the forest will yield.

3. To maintain a forest cover which satisfies the requirements of regeneration, aesthetics and preservation of the diverse vegetation types.

4. To preserve and protect recreational values, fish and wildlife habitat, soil and water resources.

Strategies

The Authority meets the first two objectives by contracting with local loggers and with mill operators for production and delivery of forest products to the sixteen dependent mills. Logging operations are fully integrated to generate a variety of forest products. Aggressive marketing practices are used in disposing of surplus low grade products.

The second two objectives are met by sound planning and controlled implementation within regulated standards. Silviculture prescriptions specify various degrees of partial cutting in the principal working groups. Residual stands will provide subsequent harvests and seed for natural regeneration. Logging impact is minimized by buffer zones along lakeshores, watercourses and other sensitive features. Road location and construction are done discreetly to facilitate natural and assisted rehabilitation of trail and stream crossings after use.

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[1] Forest Management Plan Algonquin Provincial Park, Algonquin Forestry Authority 1980.

[2] The Forest Industry in the Economy of Ontario, Ministry of Natural Resources, 1981.

EXCERPTS FROM ALGONQUIN PROVINCIAL PARK MASTER PLAN, TIMBER MANAGEMENT

Timber management

Standard Ministry forest management planning techniques are applied to the commercial forest area open to timber harvest in recreation/utilization zones in Algonquin Park. Special harvesting and road construction regulations have been developed to protect Park values and recreational opportunities. A Crown agency is being established to carry out all harvesting and silvicultural operations prescribed by the Ministry. Special silvicultural systems have been developed to maintain the managed forests in the Park in a productive and attractive condition.

Algonquin Forestry Authority

The Authority will function as a Crown Corporation, harvesting forest products and supplying them to the manufacturing facilities currently dependent upon supplies from the Park. The Authority will carry out all road construction, silvicultural activities and cutting of trees prescribed by the Ministry. The role of this agency will therefore be operational in nature with a commercial service orientation.

Given the volume of forest products it may harvest annually and the social and environmental constraints which the Minister will determine, the Authority will operate as efficiently and effectively as possible to produce its products at minimum cost for sale to manufacturing centres.

Licenses held by a total of twenty companies will be cancelled and replaced by a volume agreement issued by the Ministry to the Algonquin Forestry Authority. As an initial target, the average level of harvesting of 15 to 17 million cubic feet of wood each year will not be exceeded during the period of plan review from 1975 to 1979. This consists primarily of sawlogs and veneer. With improved markets, additional quantities of low grade wood can be produced through fuller utilization. The average level of harvesting is lower than the sustainable yield on the portion of the Algonquin forest zoned as harvesting/recreation.

The Board of Directors of the Authority will determine appropriate strategies by which the agency may meet its objectives. It will also prescribe operational practices and procedures in administrative areas not prescribed by the Ministry. The Board will supervise the affairs of the Authority to assure its efficiency and effectiveness and advise the Minister on new policies or objectives which it feels may warrant adoption.

The Authority will conduct logging operations through the use of local contractors and will pay normal stumpage, forest protection and forest management charges. It will carry out silvicultural and special project work as directed by the Ministry.

The following policies, prescribed by the Ministry, will guide the Algonquin Forestry Authority. They provide an understanding of the management activities of the Ministry insofar as the activities of the Authority will affect these objectives. Briefly stated, this involves the use of reservations, controls on location, standard and degree of development of roads and the treatment of the forest to maintain it in a productive and attractive condition.

Silvicultural systems

Silvicultural techniques will vary with the nature and condition of the forest to achieve the objectives of management.

Any silvicultural system is intended to obtain regeneration of a desired species at a suitable time and to maintain stocking levels which will allow this regeneration to develop satisfactorily. Thus, depending on the species to be regenerated, its silvical characteristics regarding seeding habits, site requirements and competitive ability, the basic silvicultural system chosen will be applied in such a way that a regime of cleanings, thinnings, improvement cuttings and/or other treatments may be prescribed. While such treatments may occur coincidentally with logging operations, the Ministry will determine what supplementary silvicultural operations are to be conducted. Principles from the Ministry manual, "Design Guidelines for Forest Management," will be followed for all operations and will control the size and shape of clear cut areas, construction and maintenance of roads and landings, and all other factors affecting forest aesthetics.

Silvicultural systems will be applied to the various working groups as follows:

(a) Tolerant Hardwood Working Group (sugar maple, yellow birch, beech and occasional associated species)

The selection system or the uniform shelterwood system will be used, according to standardized Ministry policies and procedures for this working group.

(b) White Birch and Poplar Working Groups

(i) When these species are growing on suitable sites, the clear cutting system will be used. Supplementary regeneration will probably not be necessary.

(ii) When these species are growing on unsuitable sites, the clear cutting system will also be used; however, this will require supplementary regeneration work which in most cases will involve planting with more suitable species. Such work must be undertaken at the time of the harvest cut. In any situation where white pine is to be established as part of the new stand, a sufficient overstory should be left to discourage weevil infestation. If it is decided that a large area of this working group is to be logged, the cutting area and/or modification of the clear cutting will be controlled and designed to fit the landscape from an aesthetic standpoint.

(c) White Pine Working Group

Reference will be made to the Ministry's silvicultural guide for this working group. The uniform shelterwood system is preferred and will be used where applicable. Areas presently managed under strip shelterwood will continue under this system until they are completely harvested.

(i) Under uniform shelterwood, the first cut will be a preparatory one in which high quality trees are favoured as a seed source and low quality trees are removed.

(ii) The second cut will be a seeding cut in which high quality seed trees are favoured and the stand is opened up to establish regeneration by removing fifty percent of the volume. This cut must be made to coincide with a good seed year.

Site preparation may be necessary at this time.

(iii) The third and subsequent cuts will be made to promote suitable development of the regeneration. The final cut will remove the remainder of the overstory when the danger of severe weevil attack is not critical.

(d) Red Pine Working Group

The seed tree system will be used, supplemented by planting when necessary. Approximately 8 to 15 windfirm red pine or white pine trees per acre of good quality will be left as seed sources. A successful natural seeding can result only if a seed year occurs before the competing vegetative growth is well developed. The seed trees may be harvested when regeneration is established.

(e) Jack Pine Working Group

The clear cutting system will be used. Supplementary measures, such as burning, seeding or planting will be carried out as required after cutting. On sites that are more suitable for species other than jack pine and balsam fir, it may be desirable to establish and manage them by their appropriate silvicultural system. For example, the uniform shelterwood system may be used to establish white pine.

(f) Balsam Fir Working Group

The selection system will be used on suitable sites. In most cases, this system will be applied by the use of a diameter limit. The diameter limit to be used will depend on site condition and stand structure. The intent will be not to cut so heavily that the stand is invaded by undesirable tree species. To avoid this, it may be necessary to mark for retention some trees above the diameter limit in order to maintain a reasonable stocking level. On certain suitable sites, conversion to other species may be advantageous, for instance clear cutting in patches to establish red pine.

(g) Spruce Working Group

The selection system or the uniform shelterwood system will be used. When stand conversion is required, clear cutting in patches may be used. The choice will depend upon management objectives, site and stand conditions.

(h) Hemlock Working Group

The selection or group selection system will be used to create satisfactory openings for regeneration. The choice of system will depend on site conditions and stand structure. In some cases, site preparation will be necessary to create a suitable seedbed. If a site is more suitable from the viewpoint of timber production for a species other than the one growing on it, it may be desirable to apply an alternative silvicultural system to establish the more suitable species.

Intermediate cuttings and other silvicultural operations such as cleanings, thinnings, improvement cuttings, site preparation, planting and seeding will be carried out by the Algonquin Forestry Authority in circumstances as the Ministry requires. Such work may be undertaken for purely silvicultural reasons or to maintain vegetation in a suitable condition in recreational development areas, including campgrounds, picnic areas and interior campsites.

Forest management, harvesting and road policies

Logging, road construction and all other forest operations shall be conducted in the places and within the times designated by the Ministry. The location and standards for roads, landings, work camps and other structures will be prescribed or authorized by the Ministry.

The methods and techniques of operating shall also be subject to the approval of the Ministry. This involves the following aspects of operations:

(a) job layout including pattern of roads, skid trails and landings

(b) kind and size of equipment used.

These matters are ultimately the responsibility of the Ministry in its interest in protecting site quality, in carrying on effective control over all stands of commercially grown timber, and in maintaining appropriate aesthetic and noise standards.

Policies

(A) Timber Management Area

Commercial timber management and harvesting will be restricted in Algonquin Park to areas designated by the Ministry within recreation/utilization zones.

(B) Marking of Timber

No timber may be cut in the Park unless it is marked or otherwise designated by an officer of the Ministry.

(C) Waters, Portages, Public Roads, Railway, Boundary

Except for recreation or aesthetic purposes, no marking will be done within 100 feet of any body of water, public road[1] and railway rights-of-way, within 200 feet of portages or within 500 feet of the Algonquin Park boundary. Marking and cutting within view of public travel routes will not detract from the basic appearance of the forest in these areas. Instead, vegetation management will maintain or restore an undisturbed appearance in areas which are viewed by the recreating public. All slash within 400 feet of publicly used waters, public road and railway rights-of-way and portages must be lopped to within three feet of the ground.

(D) Islands and Natural, Historic, Primitive, Access, Recreation and Development Zones

No commercial timber cutting or road building is permitted. In cases where there is no alternative in the parkway corridor recreation zone, it may be necessary to upgrade old timber haul roads to reserve crossing standards for use on a seasonal basis from the beginning of November to the following mid-April while harvest cutting only is occurring. At the beginning of the Park operating season, the vegetative appearance of these roads will be restored in all areas intersecting recreational travel routes.

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[1] This policy applies also to the Bissett-Radiant and Otterpaw Roads.

(E) Deer Yarding Areas

No cutting or road construction will be permitted unless authorized by the Ministry and in line with the prescriptions of the deer management and timber management plan for the Park.

(F) Forest Operations

Between the last Saturday in June and Labour Day, both dates inclusive, road construction and cutting is prohibited within one and one-half miles of canoe routes and recreational trails. This distance may be reduced to one mile where mufflers on power saws, trucks, skidders and other powered equipment effectively reduce noise to levels imperceptible to users of nearby canoe routes and recreational trails.

During the same period, hauling from and through the same areas is restricted to 7:30 a.m. to 6:30 p.m. daylight saving time Monday to Friday inclusive, statutory holidays exclusive. There are no hauling restrictions on, and north of, the Sand Lake Road between the Sand Lake Gate and the Petawawa River bridge at Lake Traverse as well as on all roads north of the Petawawa River and the chain of lakes connecting Lake Traverse to Kioshkokwi Lake. This will be reviewed when the proposed Stratton Lake Campground comes into operation because it will be accessible via the Sand Lake Road.

As harvesting becomes more mechanized, special consideration will be given to limitations on the operation of large and more complex machinery. New types of logging equipment proposed for use in Algonquin must meet sound-level standards and have the Superintendent's prior approval.

The abandonment of vehicles and equipment, littering or improper garbage disposal along roads or in other work areas by contractors of the Authority will be prohibited.

The rafting of logs across lakes and the driving of rivers is prohibited in the Park. The salvage of old logs from Algonquin waters is not permitted. Park waters may not be used as log storage areas. Existing storage areas will be phased out as quickly as possible.

While primary consideration is given in timber harvesting to limiting the impact on other resources and uses, the duration of logging is also limited to a practical minimum with a maximum possible period scheduled between cuts. Regeneration is to be completed as soon as possible following logging. This will allow areas involved to be closed to further entry in a minimum period of time following harvest, in line with the strategy for roads crossing canoe routes. To ensure that all vehicular road use in these areas will terminate upon completion of operations, regeneration and crossing rehabilitation, road maintenance will cease and effective road blocks will be provided. Upon re-entry for harvesting purposes, formerly used road, landing and crossing locations should be used as much as possible. Long range timber production planning will view this as a permanent, but partially intermittently used road system.

The Authority will also be responsible for the re-establishment of the tree cover on borrow pits, landings and other recent man-made openings which will not be used again in a few years.

(G) Camps, Other Structures and Improvements

Logging camps will be located out of sight and more than one-half mile from the shore of canoeable lakes and streams or from portages and hiking trails. Only temporary portable work camps will be permitted. Additional sawmills or other forest industry manufacturing operations will be prohibited. Existing permanent forest industry facilities should be phased out when possible. Camp layout, location and sanitary facilities must have the Superintendent's advance approval. Buildings, bridges and other structures and logging improvements will be removed after use and the sites cleaned up by the Authority.

(H) Vegetation Management for Recreational Purposes

Timber stand improvement is prohibited and the cutting of live trees is limited in primitive zones and in reserved areas to that essential for public safety and for development of portages, trails, campsites and administrative sites. In natural, historic and recreation zones, stand improvement and cutting will be permitted in cases where such activities are consistent with the purpose and authorized public use of the zone.

Hand planting or seeding and cover manipulation using native species may be carried out on interior sites which require rehabilitation after heavy use or burning.

Interior crews may not cut timber in maintenance activities or for improvement projects closer than 300 feet from campsites, portages and the shores of canoeable bodies of water. The cutting of living cedar trees for these purposes is prohibited.

(I) Herbicides

The use of herbicides by the Authority in road maintenance and silvicultural treatments will be in accordance with previously described policies and only in situations prescribed by the Ministry.

(J) Road Construction

No roads may be constructed within 400 feet of waters, portages, public road and railway rights-of-way and the Park boundary, except in accordance with the later described strategy for roads crossing canoe routes in the interior. Roads or clearings will not be constructed within any reserve unless they are authorized in writing by the Superintendent and announced publicly by the Ministry before the ensuing canoeing season. The construction of roads or the cutting of rights-of-way by the Authority may not begin without the approval of the Superintendent.

All roads will be developed in accordance with the permanent forest management road system strategy. This will be structured within the period of master plan review between 1975 and 1979 and will attempt to resolve problems associated with many existing roads that are not optimumly located for recreational, timber management, harvesting or forest product distribution purposes. Within this strategy, roads other than those forming part of the approved permanent road system should be closed within two years following harvest. Sections of these roads crossing portages, trails and navigable or publicly used streams and rivers should be rehabilitated. Rehabilitation of stream crossings will normally require bank stabilization involving the planting of native trees and shrubs. A natural vegetative appearance will be returned to stream and portage crossing sites through such planting and by spreading appropriate matching types of ground litter such as leaves, branches and mosses.

Type of Road	Maximum Right-of-way Clearing
Access Road	45 feet
Internal Haul Road	30 feet
Roads crossing timber reserves within 400 feet of portages, waters, public road and railway rights-of-way and the Park boundary	22 feet

Roads between 400 feet and 1500 feet of canoe routes have a maximum width right-of-way of 30 feet. The above right-of-way widths are maximum and these maximum widths are to be used only where absolutely necessary. All merchantable timber must be cut and salvaged from rights-of-way prior to bulldozing. All slash on access roads and crossings through all timber reserves must be lopped to within three feet of the ground. Road crossings of canoeable waters will be by bridge, with a minimum approach fill and clearance to preclude the need for portaging.

(K) Transportation of Forest Products

The transportation of unmanufactured forest products from areas outside Algonquin to manufacturing facilities now established within the Park will be permitted only until such facilities are phased out.

Transportation of unmanufactured forest products from areas outside the Park to manufacturing facilities outside via Algonquin roads is permitted only over public roads in the Park.

The Algonquin Park Advisory Committee recommended as a special case, where no alternative existed, the use of a road through part of Bruton Township by the Martin Lumber Company as long as the road is also used to haul timber from inside the Park. This matter is to be reviewed by the Ministry annually.

(L) Strategy for Roads Crossing Canoe Routes

The conflict between low intensity forms of recreational use and the management and harvesting of forest products in the interior of Algonquin Park is well known. For other than those who are vicariously dissatisfied in knowing that logging can or does occur in an area, the conflict can be minimized to a significant degree by limiting the "sights and sounds" of commercial wood production encountered by interior travellers. Roads are the most significant element in this conflict.

The strategy selected in dealing with roads crossing canoe routes balances user needs and Park values against forest management and harvesting needs. To accomplish this, the entire canoe route network was subjected to an individual linkage component analysis. The measurement of all parameters involved was largely impossible. Even from the recreationist's standpoint, the ecological implications of additional road distance could not be measured against the relative aesthetic advantage of two crossing alternatives. The strategy does, however, rationalize roads as they relate to the entire interior waterway travel network and establishes Park-wide priorities which consider not only old crossings but also all possible future crossings.

Four classes of crossings or portages and constrictions in navigable waterways were established and applied to the entire potential interior waterway travel network. The system will be applied to hiking or horseback trails developed in recreation/ utilization zones. The classes are:

No Crossing. Portage or waterway crossing at this location should not be considered.

Temporary Winter Crossing. Only a temporary portage or waterway crossing should be considered. Road built to harvest forest products and to conduct silvicultural operations at the time of cutting only. Road access for later tending operations is not considered. Crossing rehabilitation must be completed by April 20th and carried out between Park operating seasons. Work on the crossing should not start before October 15th.

Temporary Crossing. Only a temporary portage or waterway crossing should be considered. Road built to harvest forest products over an entire block using one silvicultural system or at intervals by another system. Road access for silvicultural operations at other than the time(s) of harvest cutting should not be considered. Crossing rehabilitation and crossing development work as per the temporary winter crossing class dates and at the end of the harvest cut and between periodic harvest cuts.

Permanent Crossing. Permanent portage or waterway crossing at this location for harvesting and management purposes may be considered.

When a block of timber is bounded on all sides by canoe routes and is part of the designated timber production area within recreation/utilization zones, the class of crossing having the minimum negative recreational impact will, within practical limits, be selected. Where two alternative crossings of similar classification exist, the Superintendent will determine which will have the lesser recreational impact.

The crossing classification will exert an important influence, along with the distribution of timber and markets, upon the location and extent of the permanent interior road system designed for the Park. Basically, stream and portage crossings by timber roads are limited to the most practical minimum, recognizing timber product needs and the varying degrees of impact on recreational use of different crossings. As many of these crossings as possible will be rehabilitated after use to minimize road impact on recreational use of the interior and to ensure site protection and hasten the return of a vegetative appearance. Unless no other alternative exists, no new crossings of major canoe routes will be allowed. Trading of one crossing for another will not be permitted.

Timber research

The existing research area at Swan Lake will continue to be maintained and other areas in the Park may be used: (a) to study the silvical characteristics of native tree species; (b) to conduct experiments and collect data as an aid to forest management; (c) to demonstrate various silvicultural and other management methods for the purpose of staff training and for other groups; (d) to develop, evaluate and demonstrate various operating methods and techniques to serve as a guide for those engaged in, or concerned with, forest operations.

The Algonquin Forestry Authority may be asked from time to time to provide men and equipment to carry out prescribed operations under the supervision of the staff of the Swan Lake Forest Research Station. Timber harvested from such operations will be made available to the Authority.

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EXCERPT FROM ALGONQUIN PARK MARKETING AND TOURISM DEVELOPMENT STUDY, OCTOBER 1986

Exhibit VI - Summary of market potential for the major market segments

Market Segments	Volume of Park Use[1] by Activity (estimated 1984)	Growth Potential
1. Canoeists		
Day Canoeists	66 000	High
Canoe Campers	36 000	High
Canoe Trippers	24 000	High
2. Hikers		
Day Hikers	116 000	Moderate
Backpackers	2 400	High
3. Campers		
Tent and Tent Trailer Campers	57 500	Low to Moderate
R.V. Market	13 500	Moderate (presently underserved by Park)
4. Day Users		
Cottagers	22 400	High
Permanent Residents	6 800	Moderate
Tourists to Region	60 100	High
5. Coach Tours	1 700	High
6. Natural/Cultural Appreciation		
Special Groups	2000-2500	High
General Interest--Nature	183 500	Moderate to High
General Interest--Historical	99 500	Moderate
7. Resort Market	15 000-20 000	
Family Vacationers		High
Couples		Moderate
Meetings/Executive Retreats		Moderate
Incentive Travel		Low to Moderate

Market Segments	Volume of Park Use[1] by Activity (estimated 1984)	Growth Potential
8. Winter Users	3000-5000	High
9. Anglers		
Serious Anglers	16 000	Moderate
Casual Fishermen	33 000	High

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[1] Volume of Park Use has been estimated from surveyed participation rates, other survey information and annual visitation statistics.

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TIMBER MANAGEMENT SYSTEMS USED IN GREAT LAKES/ST. LAWRENCE FOREST

Timber management practices

Three basic approaches have been developed over the years to successfully establilsh and maintain different forest types. These systems complement the natural forces of establishment, growth, competition and decline that are at work in the forest, to achieve the desired outcomes. They are flexible, and thus allow for protection and enhancement of other forest values and uses.

The following timber management systems are the basic techniques used to establish, maintain and improve the different forest types:

Selection

The selection system is ideally suited to the tolerant hardwood forest type and in areas where a high degree of forest cover is beneficial to other forest values and uses.

Trees are commonly removed either as scattered individuals or in small groups, at relatively short time intervals (10-20 years). This operation can be repeated indefinitely. These periodic harvests create a forest containing trees of all sizes and ages.

Trees of all ages are harvested, including those which are defective, overmature and those trees competing with others of greater potential value. This improves the quality and growth of the remaining forest.

In maple, beech and hemlock forest mixtures, most species present will grow and reproduce in the shade of other trees. Regeneration develops from natural seed or seedling sprouts in the small openings created.

Shelterwood

This management system is used to regenerate tree species which have light requirements between that produced by the selection and clear-cut management systems.

The amount of light available to the regenerating trees is managed by a series of cuts. The first cut leaves a partial cover of the best trees to provide seed and the necessary shade to obtain and develop regeneration. Once seedlings have established, the remaining "overstory" trees are cut.

By having the new forest in place before the partial cover is removed, forests under this management system maintain their aesthetic appeal and cover for wildlife. This is a useful system for regenerating white pine, red oak and yellow birch, and results in a stand in which all the trees are about the same age.

Both the selection and shelterwood timber management systems utilize natural regeneration to renew the forest.

Clear-cut

This system removes all trees and is suitable for species requiring full sunlight to establish and grow. Regeneration may come naturally from seed present on the forest floor or sprouts from the cut stumps or artificially by planting.

The clear-cutting system is normally used when we wish to manage for light-demanding species such as poplar jack pine and white birch. Modified clear-cuts in the Algonquin Region are relatively small in size (averaging 30-40 acres) and represent about 10% of the total area harvested in the Region.

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LISTING OF WILDLIFE STANDARDS AND GUIDELINES IN USE IN THE ALGONQUIN REGION, MNR, JUNE 1989

- deer habitat management

- deer habitat ranking

- guidelines for moose habitat management in Ontario

- habitat management guidelines for Ontario's forest-nesting Accipiters, Buteos and eagles

- habitat management guidelines for Bald Eagle

- management guidelines and recommendations for Osprey in Ontario

- management guidelines for the protection of heronries in Ontario

- habitat management guidelines for birds of Ontario wetlands including marshes, swamps and fens or bogs of various types

- habitat management guidelines for warblers of Ontario northern coniferous forests, mixed forests or southern hardwood forests

- habitat management guidelines for cavity-nesting birds in Ontario

- habitat management guidelines for bats of Ontario

- guidelines for the protection of forest-nesting and wetland-nesting bird habitat by means of modified management areas (draft)
- background document—habitat management guidelines for forest-nesting and wetland-nesting birds
- Peregrine Falcon habitat management guidelines
- Golden Eagle habitat management guidelines
- Crown land timber management and rare, threatened or endangered species in Ontario

Workshops (4)

WORKSHOP 1 REPORT

Gordon Kerr
Regional Director
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I would like to start with a definition; what we did at least partway through our discussions was to define what it was we were going to talk about. I thought it was a good idea. We felt that the result of an effective integrated management process should be long-term, social, environmental, and economic balance. You will notice the word "wildlife" does not occur there, because we concluded in our discussions that we cannot plan in an integrated way for wildlife, but that we can only put wildlife into an integrated system.

You have heard three presentations over the last day. I will not try to recap those at all, but I will try to give you a very brief overview of what our discussions were about, where they went to, and what our conclusions were.

The planning process

We concluded that integrated management deals with a question of politics, political will, public concern, and that sort of driving force at one end. It deals often with a question of legislation and whether or not planning is mandatory, or something you can choose to do or not do. We also discussed a little bit about the planning process being legislated and therefore being somewhat systematic.

We dealt with the planning process itself, which includes the implementation of the plan, and some of the good ways of doing it and some of the pitfalls in the process. We stressed that the end product is not the plan, but rather it was the results on the ground. Without implementation, the plan is worthless.

We also dealt with the question of commitment to the plan, the resources, and the funding.

Problems

We first dealt with some of the problems of planning. It is easy to define the problems—it is more difficult to identify the solutions.

We talked about planning being reactive, and we felt that that was a problem, that planning should be proactive rather than reactive. Plans as often as not are the result of someone's proposal. Someone proposes a pulp mill or a dam or the sale of land or whatever, and the plan reacts to that; we felt that in an ideal world, the plan should come before the proposal. We felt that, because of that reactive nature, plans are always too narrow; instead of dealing with the holistic approach, or the whole environmental planning process and all of our environmental values, it tends to deal with a narrow area, for example, a moose plan, or a deer plan, or a timber plan, or something. Plans are too narrow—we need to broaden them out.

We talked about the implementation of the plan and the lack of follow-through. We felt that one way to build in implementation was to have mandatory conditions of feedback. If we had feedback, we felt that that would tend to drive implementation. One example is the North American Waterfowl Management Plan, which by and large we have only seen as a plan so far. Only slowly are we seeing some implementation. Because it has a five-year review requirement, this evaluation is in fact driving us towards getting something worthwhile done, so we will look good on evaluation day.

As we looked at plans, we felt there was often a lack of or insufficient data or information. We felt there was a problem in having conflicting objectives; as we thought more about that, however, it was concluded among the group that really that was not a problem, that, in fact, it was good as long as you had it up front early in the process, so those conflicts or points of view and objectives and so forth could be identified, addressed, and dealt with, rather than popping up after the plan was approved or halfway through the system. Likewise, the inconsistencies that occur within organizations, the internal conflicts between the duck biologist and the moose biologist and the timber manager, all of whom work for the same organization and come in with different points of view, are good; if the conflict is there, get it out to public processes, to debates, and in hearings; get it up front and deal with it, rather than having it hidden behind closed doors, or perhaps then all the values do not truly get considered.

We felt that planning should build in some means to be adaptable; one of the ways of addressing that was to have better projective capability. You need to take into account economic trends and projections of future economics, as accurate as they might be. We have to build in things like climate change. There is little point in planting trees in some places if in fact you are predicting that the climate is going to change significantly. Those are the things that need to be built in as much as we can, and we felt that maybe they are not being built in enough at this point.

There needs to be improved communication. Sometimes, mostly within organizations, there is often a good communication from the planning team to the public, but often not such great communication within the organizations; the internal marketing and communication procedures and programs need attention. And, of course, there has to be public information support for the plan and so on, and I think that builds back into the feedback--if you have an informed public, there is a demand for feedback.

Solutions

Those are the problems that came out of our discussions. The tougher part was to come up with a solution.

We felt that there needed to be policy direction and legislation. We thought that there used to be a systematic planning system, something that is a regular and systematic process and not something that is hit and miss and can be either implemented or avoided. This probably has to be somewhat mandatory to guarantee that certain steps are carried out.

Certainly policy and direction need to be based on public debate, public input, which is really political pressure and a buying in of the political side of government. I think that without that public upwelling of concern and demand, governments are not likely to create policy. We need that policy direction, we need to have that kind of public concern and policy commitment right through the system, all the way down to the commitment of resources and seeing it through.

It was evident in the case study presentations that wherever integrated planning was working, it was required by law to work. I think we see that in Canada with our Environmental Impact Review Process. It started off as a policy, but largely discretionary. Now, in Canada, people want to make it a law, so that it is an absolute requirement.

The systematic aspect of it, I think, is important. We went into quite a bit of detail on the kind of system that was needed. Clearly, there was need for public input up front--that sort of people input of a nonscientific nature, just good gut feelings and desires and people's perceptions. That has to be coupled with the scientific database, as to soil types, populations, projections in the future, and so forth. It would probably never be decided in a public forum as to which way we go; there has to be a decision point of authority that clearly relates to elected representatives who govern.

We felt that through monitoring, through public information and feedback with an evaluation, the whole system becomes cyclical. You develop a plan based on policy, you take it through a systematic process, and at five years or 10 years, whatever those evaluation periods are, it comes back up to the system again for review--to see if you are on track, to see if in fact the world has changed, to see if your predictions are on track. If that feedback system is in place, it will keep that stability we thought we needed, keep it on track towards the majority of objectives.

Is integrated management the exception?

We asked ourselves at the end, is integrated management the exception? We answered "yes." In spite of planning, integrated management was, we felt, the exception. We were encouraged at least that there was an improvement, in that the planning processes are becoming more integrated; they are not quite there, but they are becoming more integrated, and it is becoming, I think, more recognized, from what I could gather from the discussions, that the implementing of integrated management is becoming the challenge and the goal rather than the integrating of the planning.

I think that is something you want to keep pursuing. It is what happens on the ground that counts. If we do that, then I guess this end result will be realized--there will be a balance between social, environmental, and economic goals and processes in the future.

WORKSHOP 2 REPORT

Shane Mahoney (Rapporteur)
Director of Land Management
Newfoundland Department of Environment and Lands

We approached the topic a little bit differently from Workshop 1; nevertheless, we came to a number of the same conclusions. We reviewed the case studies first and foremost, of course, and then we identified what we thought were the strengths and the weaknesses of the individual studies. I will not concentrate on a litany of the various aspects of the specific studies but will merely comment first on what we thought were strengths and weaknesses.

Strengths of programs

As was just mentioned by Workshop 1, one of the most important and significant strengths associated with the three programs we heard about was the fact that legislation did in fact exist; it was, I believe, a summary conclusion of all in attendance that this was particularly important--not only for extant programs but also for programs that might be envisaged in the future. This, in fact, was a characteristic that applied to all three studies, although the legislation may have been different in the three cases.

We also felt that there had to be a strong commitment in terms of funding for these kinds of programs. They are extremely expensive. You cannot undertake them by the seat of your pants. Despite the fact that I am sure all individuals involved in the three studies may say that they would like to have more money, more capacity, these individual projects do appear to be relatively well funded.

A particularly important point is that at least the studies tried to identify measurable goals. This must be a strength of any attempt at integrated management. It is important, we felt, not only in terms of introducing politicians and industry and the public to the process, but also in terms of determining whether or not we have succeeded--there is a danger in not trying to assess whether or not we have succeeded.

There was much comment made with respect to interdepartmental agreement, and this led to some discussion of whether or not it would be better to have the various resource agencies amalgamated into one department. I think the consensus of opinion was that this may, in fact, in some cases facilitate this kind of process, but it is not absolutely essential as long as the various departments adopt similar policies and postures.

A strength that also was identified was an emphasis wherever possible on habitats, and on the question of trying to maintain diversity of habitat. This is obviously a very basic ecological argument; however, it is also one that is of prime importance in terms of its interface with industry, and it leads us away from what we sometimes have a tendency to do, which is to concentrate on very specific aspects of the ecosystem, sometimes, in our collective opinions, to the detriment of others.

We also identified another very significant strength, and that was trying to eliminate the politicians as much as possible from the ongoing decision-making apparatus with respect to these programs. Obviously, it is necessary for the politicians to make statements in terms of legislation, and indeed in terms of making sure that policy is developed and agreed to and implemented. But it was the consensus that it is far better to have the ongoing decision-making authority reside well below the cabinet stratum in order to effectively ensure that these kinds of programs carry on for long periods of time and respond to factors other than political agendas.

Weaknesses of programs

We identified a few weaknesses as well, not surprisingly. This is a relatively isolated and relatively new approach. One of the most important was the lack of monitoring. We felt that in some cases, at least, there was no attempt made or no infrastructure in place to monitor the effectiveness of the programs. This, as I said before, is something we felt had to be done.

We felt also, not surprisingly either, that there was inadequacy in the assumptions and in the predictions made. This stemmed, obviously, from an inadequate database, which does not surprise any of us who have worked in this field. The general impression was that the database, in some cases, at least, is better refined and defined for the forestry/timber aspect than it is for the wildlife aspect. Of course, your assumptions, predictions, goals, and objectives can only be as good as the information that you have.

We also felt that there was a substantial amount of bureaucratic inertia associated with this process. It seemed that a tremendous number of infrastructural and decision-making levels were necessary in some cases to establish this kind of program. That obviously led to time lags and complications; in some situations, this kind of time lag may not be ideally what we want. Perhaps in most cases it is not ideally what we want, but in some cases it may preclude decisions affecting threatened or special systems that simply do not have a decade to wait. This bureaucratic inertia was associated, of course, with a tremendous manpower and logistic cost associated with this program, from the time of identifying the idea or the necessity, defining the program we are going to implement, implementing it, and then seeing whether or not what we have implemented makes any difference.

On the basis of these summary strengths and weaknesses, we developed four basic questions that we wanted to answer.

Improving the success of programs

The first question was, how do we make the programs more successful? Obviously, this primarily meant keeping a tether on the weaknesses and strengths of the systems as identified and saying what we wanted. We wanted to establish monitoring and enforcement programs so that if we establish a program, we have some means of identifying whether or not this program has worked. Consistently among our group, that appeared as an absolutely essential element.

We wanted to initiate a successful program to obtain sufficient information so that the goals and objectives that we make are the best they can be; this must be an ongoing program, because goals and objectives will almost certainly change because of factors we cannot predict when we start.

The approach too, in terms of the programs that we initiate, must be broad-based. The programs must stress social, environmental, and economic considerations, and lip service must not be paid to any of these. If we really want integrated management, the decisions concerning those factors have to be clearly articulated for all "stake holders," as the term came up in the process.

The public must know the costs. Politicians will probably identify the costs, and industry must know the costs, and we all must recognize the benefits. We must have better and stronger educational programs that involve the public, and these must not only identify and stress the failures that have occurred in the past, and therefore justify our wanting of this new system, but also point to successes that have been realized.

We must try to strike a balance in successful programs. Successful programs must be balanced in terms of the money that we have and the various aspects, such as monitoring and objectives. We cannot concentrate too much in any successful programs on one end or the other, or else the money is not being best spent.

We must have, and this is the most difficult one to achieve, perhaps, strong and pervasive government policy. This policy must define definitive actions. There is not a person in this room who has not had many experiences with government policies that are written and sound wonderful and are paraded at meetings and are held up, particularly when opening addresses are made, as being an example of why the particular jurisdiction is doing great things. All of us know how frequently these mean absolutely nothing in the field.

Pervasive policy by government has to be effective, and it has to be effected for any successful program in this regard. Any successful program must stress proactive decisions. Reactivity is almost alien, in a sense, to the spirit and philosophy of what we are talking about. We thought that successful programs should also have a range of intensity of use so that there is some way of monitoring whether or not the program we have implemented is actually the best one. How do we know that what we have suggested is better than some other alternative?

Promotion of programs

Our second question was, how do we promote these programs? We struggled with the terminology at first, but basically what we mean is that scientists themselves, and all of us who are involved in the system, at our levels and below, must become more aggressive and more tactical in terms of how they wish to affect policy. We have a great deal of inertia as scientists, which tells us that we do not have to be concerned with the social implications of our analyses, but we have to recognize this and change it.

We have to make sure that we do promote the extant programs that have worked and identify programs in the past that have not, and we must stress this idea, that protecting the environment and striving for multiple resource use are not costs but benefits. It will be very difficult to constantly stress that point when industry, for example, will constantly be looking at cost, and discussion will constantly be brought back to that point.

As a tactical maneuver, we felt, and I concur that this is extremely important, that we have to try a multilegislative process, at every step in the legislation and policies that we and our various departments are involved in, and we have to get this message across. We saw this in some of the case studies. For example, in the U.S. situation, the Endangered Species Act not only has aided and abetted the program, but has also led to some of the most publicly available debate on this entire question. The conservation strategies are one example of where we have to make sure this is included; even at the level of species plans, I, as a biologist responsible for caribou, or any other person responsible for another species, can, when he writes that plan, work this in.

Our transportation legislation, our hydro legislation, our forestry legislation--all these legislations can include this kind of message. The reason that it is tactical is because it makes it extremely difficult for those who might want to abridge the process through political short-term reasoning to preemptively track and respond to a variety of legislation.

Monitoring and measurement of progress

Our third question was, how do we monitor and measure progress? First of all, we said that we have to be very specific in the beginning as to what goals and objectives we are setting; otherwise, they become almost impossible to measure. Perhaps we ought to become a little more representative of what our training suggests, in the case of scientists at least, and that we apply some kind of predictive aspect to our statements--for example, if we do this, this is what we predict will materialize. That is vitally important, because the suggestions that are made by policy makers or scientists are only so good, and they must be proven false or correct. We felt that, with regard to measuring, we have to concentrate on a habitat emphasis, because measuring the responses of species assemblages of the enormous size and diversity that exist in some areas of this continent would be beyond the capacity of any program. There are practical constraints.

Is it worth it?

The fourth question we posed was, is it worth it? We saw basically three examples of where this attempt has been made. A comment was made earlier that this is a relatively isolated occurrence. It is true. What is there in the empirical evidence to suggest to us that we should even be promoting this? The point was that we really do not know. All we know is that many of the other approaches that have been taken do not appear to be satisfactory, but that is not, in and of itself, essential merit for believing that the policy we are promoting is the correct one.

We felt that perhaps overall the question should be simply integrated management rather than integrated land management; we also felt that, as a general remark, we had certainly concentrated obviously on forestry, but that there are so many other multiple uses for the land--mining, hydro development, recreation, and so on--that we should not lose track of the fact that these various uses are all interrelated. Establishing a role, for example, for a hydro development in our province has certainly led to the extraction of timber that otherwise was probably not merchantable. As a result of that hydro development, we now have two mining companies that are drilling in that area, because it is now much easier to get in there.

Summary

In summation, we basically agreed that we have to try this, because we have so many examples where blatant disregard for the environment has occurred as a result of narrow perspectives in terms of resource use. Therefore, even with our limited knowledge, we must push forward. The critical question is, how do we apply this generally? We know that we have to expose those examples that have not worked, we have to identify the ones that have, and we have to concentrate tactically—that is something that we constantly came back to. Tactical maneuvers on all our parts to try to get this thing through probably are not the answer, and it is going to take commitment, in our opinion, of a more aggressive nature at all levels of the civil services and organizations that are out there.

Once we have it, we have to develop a balanced approach, one that takes into consideration the social, economic, and environmental factors. We have to approach the topic practically and proactively. We have to involve the public in the process, and we have to ensure that we have the will of all to check and see whether or not that which we have launched upon, with insufficient data, without a proven track record, is in fact how we should be divesting our monies and our time.

WORKSHOP 3 REPORT

Diane Griffin (Rapporteur)
Executive Director
Island Nature Trust
Prince Edward Island

Comparison of case studies

The case studies were all very interesting. They were all different, yet they had threads in common. For instance, they all had clear goals. Some of those goals were determined by the workshops, whereas others were given to them. The Algonquin goals, for example, were clearly given to the workshop. The case studies all identified problems or issues. The responsibilities were clearly defined, and we felt that contributed to the success of the workshops on the case studies.

Another thing that was really important was a plan for implementation. All of the case studies had legislative backing, which I found quite amazing. I think that if they had not had such backing, they would not have been as successful. It was agreed by our group that monitoring and evaluation processes are necessary. They are not all in place yet in those three systems, but, as with the other groups, we saw the feedback as being very important as a way of indicating success.

Another interesting feature of the three case studies is that they all clearly define the scope. They are working with a certain topic, a certain geographical area, or a certain group of users, or all three. Adaptability is an extremely important part of planning. We have to be prepared to adapt if we are not correct, and be prepared to take into account other ideas.

We had an interesting discussion about the differences in the process. For instance, New Brunswick did not have anywhere near the order of public input that the Algonquin process had. We are really impressed with the system in the United States, where an agency can be sued by anyone that cares to do so. Options and alternatives were not obvious in all of the processes. It takes time to develop different options, but, in a true planning process, one should have alternatives. Because of the time and cost, that is not always possible, just as evaluation is not always possible.

One of the problems was identified as measurements. What are you measuring? Are you measuring the number of elk, or are you measuring the condition of the habitat? We really have to decide that before measuring anything; as well, we should decide on reliable indicators for the feedback.

Shane Mahoney has already mentioned the lack of resources. It takes a lot of time and a lot of money not only to do planning, but also to implement it. As a result of an integrated plan, one ends up with (as described by Monte Hummel) "an uneasy truce." Not everybody comes away from the table happy. In fact, if somebody has come away from the table really happy, you can be sure that somebody else is very unhappy, so there has got to be a compromise. The danger is satisfying people instead of doing what is truly good for the resource. That is always a risk.

Public support and input

One observation made by our workshop was that optimization is the norm with the process rather than maximization. For the most part, wildlifers are very new at this game, but they are not alone in this respect. It was interesting in terms of the public, as some groups have a lot of public input. The Algonquin study gave the public the opportunity to input, even if they did not always arrive in excited droves. I like the example of the speaker bringing his own wife so he could add another checkmark for the number of people in attendance. On the other hand, if you are doing a reasonably good job, perhaps the public is satisfied; if members of the public are skeptical, maybe they do not come to the meeting. There have to be other means of making sure members of the public are educated to the point where they are interested.

A comment was made by one of our friends from the United States that an educated public will mean that there will be no more controversy. In other words, people are going to be there, they are going to be aware, and they are going to speak up, so that becomes rather interesting.

All three cases had public support, even though they had different amounts of public input.

Decision making

It was interesting to discuss scientific purity, as biologists do not like making decisions when they are not sure of the answers.

We are not all like David Suzuki. David has the answer, or at least he appears that way to the public. He has become a guru for science. If we feel it is unethical to make decisions when we do not know the answer for certain, you can be sure there are others out there representing other interests that are only too happy to make a decision. We will be left in the dust. Or, as they would say in Newfoundland, we will be left in their wake.

An interesting comment came out in our workshop that probably arose from The Honourable Colin Maxwell's earlier address. When you get everybody into the same department, it is easier. At least the Deputy Minister can say that no one comes out of that room until a decision is made. If there are people from other departments, there is not necessarily the same level of control over them. I can think of some examples of that, where people can stand back and say, "We are going to boycott the process, we don't like it." Alberta Provincial Parks has had that reputation in the past, because it was Energy and Natural Resources that was doing the planning, as it had the majority of the land management capability and responsibility. But standing back does not help the resource, and criticizing the process does not help either.

We talk about getting a decision. There may be times when you do not want to force a decision. The example was used of an endangered species, one that we perhaps do not know a lot about. That may be a case for taking one's time. In most of the other cases, on the other hand, there was agreement that it is important to get in there, get one's feet wet, and make the decision. As long as there is proper evaluation, the feedback will let you know if you are right or wrong, and, if adaptable, you adjust accordingly.

Integrated planning vs. multiple use

Is integrated management the exception? We did not feel it was, as we felt there has always been some form of it, although very weak at first. The three case studies that were chosen were obviously good examples as to the degree of intensity, which has increased over the years compared with what it was. The fish and wildlife agencies have a better opportunity to make meaningful input. They have better inventory and interpretation than in the past, but the planning process forces different questions to be asked. Some of the traditional data that are being gathered are not particularly useful for this process.

One point that was raised by our group is that there will always be a need for exclusive use in some areas. We have to be very careful of the term "multiple use." Integrated planning and multiple use are two different things. Multiple use is one form of zoning that can go into the integrated planning process.

Basically, we agreed that although wildlife managers have had to become more specific about their goals in order to participate in the integrated planning process, we are not completely there yet. A good start was made in the 1960s with the Canada Land Inventory, and some provinces have progressed faster than others since then.

Achieving wildlife objectives through integrated management

Our final question was, how do we achieve wildlife objectives through integrated management? We agree with Shane Mahoney that it is integrated management, not necessarily wildlife management. Again, the concern came through loud and clear that there must be people to implement the plan once it is put in place. It is no good to leave it on the shelf. This requires budgets, staffing, and monitoring. All those resources are becoming increasingly hard to get, as we all know only too well. But now that the wildlife issues are being invited to the table, and in some cases they are becoming a priority, we have an even greater responsibility to be realistic in our objectives. We could lose a lot of credibility in the planning process if we are not cooperative.

Integrated planning happens when an agency itself is integrated, or its staff think in those terms. There has to be a new mode of thinking, as we are all trained as specialists. We are all square pegs, and now we are being forced into round holes. We have to learn new skills, as there has to be good communication in a planning team.

Discussion with other groups or managers concerning their goals is helpful. Sometimes we do not have the right perception of what their goals are, but other times we do. We have to learn to "swim in a particular sea" when on a planning team, one that perhaps we have not swum in before. We also have to learn to think positively. There often can be a perception problem that we have to get around in a planning team before we can go any further.

The scale of what we are dealing with is interesting. We were talking about New Brunswick as being a whole province; when we thought about it, though, we realized that the Algonquin Park area is bigger than New Brunswick! We have to "think big" but apply those principles to a specific area in terms of what is actually implemented so that sustainability is the goal. We are dealing with specific sites in some cases, yet we have to think in terms of a whole landscape.

One final item came out of our discussions. Do we embrace the concept of integrated management? Do wildlifers really embrace it? Wildlifers are said to like integrated management for others but not for themselves. Let's integrate forestry, mining, and a few other things, but not wildlife--it is a special case. That has happened in the past, but I believe people do not think that way anymore, particularly the people in our workshop.

Conference summary

Don Dodds
Cervid Consulting

It seems to me that the concept of integrated management has occupied the more pessimistic recesses in the minds of wildlifers and foresters, in particular, for a number of years. Perhaps, if this is true, this stems from their intimate knowledge of each other. But perhaps, too, that pessimism is beginning to fade with growing mutual tolerance and understanding. The theme this year, "Integrated land management for wildlife--fact or fiction?," suggests that there are elements of doubt left--and, of course, there should be. We are only beginning. But we have made a beginning, as the workshops at this conference clearly indicate. And, in some areas of the country, with a few industries and a few jurisdictions, integrated management is gradually becoming a fact.

I was pleased when I was asked to summarize this conference. Integrated management has been an interest of mine for many years, and, also, Newfoundland was home to us in the 1950s. It is nice to be back, and I was interested to hear from your Minister that a pine marten recovery program will begin soon in Newfoundland. Dave Pike might remember that we first submitted a marten research proposal in Newfoundland in 1958.

It was a pleasure, too, to be able to listen to Dr. David Johnston Tuesday morning answering the question, "Is there a place for wildlife at the Round Table?" Yes, there has to be a place. Some of us may even believe it might be the centrepiece on occasion. David impressed us with his optimistic view that a multisectoral body on the environment and the economy with ministerial representation may be able to forge a place in the future for sustainable development across Canada. The public today is receptive to change for improved policies for managing our lands and waters, and David underscored this opportunity for the national and provincial round tables, and for wildlife workers too, by noting that the environment is the number one issue among Canadians with a postsecondary education. David also reminded us that the North American Waterfowl Management Plan ranked as a prime example of integrated and interjurisdictional management and that those responsible should be justly proud. Sustainable development is, then, our mutual challenge.

Panel on integrated management on Crown lands

Tuesday afternoon we were treated to a forum moderated by Gordon Baskerville that considered integrated resource management on Crown lands. After reminding us that we have not yet reached our Nirvana in integrated management or even in resource management, Gordon presented the conference with a number of givens and articulated a couple of the constraints in the integrated management complex:

(1) The success of integrated management or any resource management plan implemented must be measured in resource response.

(2) Integrated management means joint production--not one product, but two or more, and society must, of course, require (or desire) those joint products.

In the problem areas, Gordon noted both bureaucratic barriers and "the more research is needed before you try" syndrome, among others. In discussing the latter, he suggested that Hollings and Walters' adaptive management concept should be most useful to us--that is, begin the management now, observe the responses, and adapt where necessary. We have the tools. What we need is a "collective attitude adjustment" to help mitigate our people problems.

Gordon moved the panel right along, as Jim Walker gave us an overview of headaches in British Columbia. Jim described their interagency referral system and noted that the referral volume was straining his agency's abilities both to handle problems submitted and then to monitor them. He noted that, unlike certain objectives ascribed to British Columbia's wildlife program by some people, their primary objective was really to maintain habitat diversity, and Jim questioned whether the private forestry sector, now assuming increasing self-monitoring responsibility, will be able to rise to the challenge of maintaining adequate habitat diversity for wildlife in their silvicultural and management programs. He also noted several positive projects in place or in progress, including a total sustainable development land-use strategy, the development of wildlife species management plans, and the acquisition of critical habitats for certain species. In flashing by the mosaic of wildlife and natural systems clients in British Columbia, he let us know that we need to examine just who and what we are working for. I think Jim closed with a suggestion that integrated management needs a "kick in the pants," but that it (integrated management) just might be working.

Well, nobody ever said it was all going to be roses--at least not roses without thorns--and Jim Inder made it clear that although the roses may smell very good in Newfoundland, they are not perfect flowers yet. Jim told us that the two processes used within government here to help move towards integrated management were essentially reactive processes--not, of course, a situation unique to Newfoundland. Both the Interdepartmental Land Use Committee (ILUC) and the environmental assessment process react to management or development proposals, but the ILUC is restricted to government projects on Crown lands and is somewhat weak relative to dispute-solving mechanisms and development monitoring. Jim also indicated that guidelines and policies are great, but that they can be changed all too quickly at times, and he noted that a Resource or Environmental Act without regulations does not always help all that much.

The Honourable Colin Maxwell refreshed us late in the afternoon with a formula for success in resource management, integrated or not. That formula is: one smooth working organizational structure plus one vibrant and aggressive political personality equals success. I understood from Colin that government has an obligation to be proactive or out in front, if you will, but has to be careful to bring its supporters along with it, and that government must also still react where necessary. Colin reviewed a few of Saskatchewan's successful resource programs--the Critical Wildlife Habitat Protection Act, the Prairie Pothole Project, and a five-year study of the effect of forest harvesting practices on wildlife. It sounds as though integrated management may have a chance of some success in Saskatchewan, although we were given to understand that political success may be temporary.

The probers, Terk Bayly and Stew Weldon, posed several questions to the panel, and I found it interesting that organizational structure was a part of the concerns each of them held. Does the organization reflect the goals and objectives held? Certainly this is a question asked by public servants who struggle over flow charts to reach the ideal and to eliminate kinks forever, over and over again, and that question will probably be asked long after integrated resource management and sustainable development are both a part of everyday life for all resource workers in the future in our respective jurisdictions.

I would have liked to have seen Nova Scotia involved Tuesday afternoon. We have, in that province, a new wildlife policy, forestry policy, and park policy; a new Forestry Act, Wildlife Act, Parks Act, Crown Lands Act, and Forest Enhancement Act; and all note specifically, or they generally reflect, the concept of integrated management. The province has also established advisory councils to help initiate integrated approaches, has recently published forest-wildlife guidelines relative to silviculture and harvest, and is actively promoting forest-wildlife approaches, through extension, with private landowners. The skeleton framework is present, and adaptive integrated management processes are slowly beginning. Right now the approaches are, at least partly, using minimal constraints on the forest industry; however, they are clearly minimal while being highly beneficial in maintaining site-specific habitats. The legal and policy base in Nova Scotia now has to be followed with regulations, planning, budgets, staffing--and implementation.

Tuesday's examination of examples on Crown land situations by a group of civil servants and The Honourable Minister was a profitable exercise, I believe, for all of us.

Case study workshops

The workshop format adapted by the program people this year was a good one, too. The case studies were well presented, and input from participants was vigorous. I think we all learned a lot.

For New Brunswick, Jeff Patch outlined the background to their present integrated planning: the 1982 implementation of the Crown Lands and Forests Act that requires habitat to be managed for wildlife as well as fibre; a detailed forest inventory of types, species composition, volume, age classes, crown canopy, etc.; and a geographic information system. Jeff noted that New Brunswick had recognized a need to establish clear objectives for forest management; a need to describe the current status of their forests; a need to be able to evaluate responses to silvicultural practices; and a need to design management approaches that would be implemented on the ground. In addition, he told us that the ability to monitor implemented plans and test habitat objectives must be present and that if integrated management was to work we must be able to adapt to observed responses where necessary.

Activities allow objectives to be reached, and activities in New Brunswick's approach included a species-habitat relationship study, the development of forest type growth models to allow for appropriate wildlife habitat predictability, and effective coordination at ground level with those leasing Crown land. By 1991, New Brunswick hopes managers will have the capability to effect forest-wildlife integration, and the province expects specific future forest composition (habitat) objectives to be set for target species that currently include deer, moose, marten, and certain songbirds. In discussion, it was suggested that changes in market demand for forest products, changes in technology in relation to operability on forest lands, insect outbreaks, or extensive fires might provide challenges for such an adaptive integrated management approach.

Dr. Jack Ward Thomas's work in Oregon is, no doubt, familiar to most of you. Jack and his cohorts in the U.S. Forest Service have been leaders in developing integrated management for years; I am especially indebted to Jack, because a little wildlife book Fred Gilbert and I published in 1987 has reached another printing, no doubt because it was dedicated to Jack Ward Thomas and his name appears in the front of it!

Anyway, Jack gave us a view of some of the legislative parameters that help set the stage for the Blue Mountain work--the Multiple Use and Sustained Yield Act, which includes timber uses, grazing, water, recreation, and wildlife; and the National Forest Management Act, which requires objectives and plans for each national forest. This legislation not only calls for the maintenance of viable wildlife population but also limits the sizes of clear cuts on national forest areas.

The habitat association approach Jack told us about is an attempt to consider 379 vertebrates systematically in a number of complex communities. Six successional stages are recognized in each plant community, and each wildlife species is associated with each of the several successional community associations for breeding, feeding, or resting as either a primary or secondary habitat. In addition, special features, including snags, riparian zones, and dead or dying (and decomposing) trees, are recognized and related to user wildlife species. Juxtaposition of types, road location, and roadside management are other parts of the complex.

Jack also rather dramatically led us through the planning process, including public hearings complete with hired guns and court appearances, and, by the end of the day, we had a plan. We learned how habitat effectiveness was rated under different use priorities, and we learned that monitoring and altering plans were necessary along the way. Thus, we seemed to be considering adaptive management once again. In fact, the New Brunswick and Oregon approaches do have much in common, and both are excellent examples of progress towards integrated management.

Al Stewart took us on a slightly different track--a scenic tour of Ontario's huge multiuse Algonquin Park--and his Algonquin story varies a little from the other two we heard. Al described a situation where there was no logging on 25% of the Park land area and where zoning nature reserves and intensively managed or high-density use zones were among user interests recognized and separated from managed areas. In the managed portions, only selection cutting and shelterwood harvesting are employed, allowing for a degree of integration of wildlife management with forestry operations that are conducted under rather rigid constraints. The success of such a coordinated management approach, it was suggested in discussion, may be to a large extent due to the separation of user areas holding differing interests, and it was also suggested that all interests could exist together on one large area as long as all of those interests could be accommodated. On the question of agency organization, Al suggested that a key to success was to have integration approaches practised at the lower levels in a hierarchy rather than at upper bureaucratic levels where it sometimes became difficult.

There were a number of problem areas defined in the workshops yesterday, and I do not intend to try to repeat them all here. Some were thought-provoking, however. For instance, "Is the plan the objective or goal perhaps, rather than the implementation?" Or, "Should the planners also be coordinators in implementing goals?" Our rapporteurs have already covered these problems very well, as they have the solutions to them, so let me move on with this summary.

Integrated management is a fact, but it is still an exception on the ground rather than the rule, except that it often occurred incidentally in the past during priority use management practices. I feel that, with proper direction, with a sound legislative framework across resource interests, with regulations, with the applications of systematic approaches, and with proper incentives built into our systems, we can certainly begin to realize effective integrated management for two or even several resources. We will probably always have one priority resource management target. It seems quite unlikely that we could have three resource bases or even two considered as equals in both social and economic importance. That is the way it is.

On Thursday morning, Gordon Kerr, Shane Mahoney, and Diane Griffin highlighted the problems and solutions emanating from their respective workshops, and we should repeat some of them here that may not have been emphasized earlier. One concern expressed was bureaucratic inertia, and surely we understand this concern. The two old "bugbears" of management and administration--"Packinsonism" and the "Peter Principle"--are often involved when policy stagnates within bureaucracy. Another repeated concern was the need to always have planning alternatives at hand so that management could move ahead when roadblocks became evident. Two others we might mention again were the need for public information and education and one that overlaps all the others, perhaps, the need for good policy to be in effect, which Shane referred to as an "effected policy."

Political support was recognized as being important throughout the planning process and, of course, prior to and following the evolution of legislation. Political participation, as interference, following legislation, however, was felt to be unwarranted.

We have all gone this way before probably, and we may again. This is not criticism. Planning and evaluation must be continuous, although they may seem to many to be repetitive. They are necessarily ongoing processes. Projected demands will change over 10, 20, 50, and 100 years in relation to populations and the needs and desires of changing publics. This year's exercise was valuable. A continuation of similar efforts in future Federal-Provincial/Territorial Wildlife Conferences will also be helpful. We need to regularly include an opportunity for people at other levels of planning processes to exchange views, however, most especially at the implementation level. Perhaps many of you here can return to home base and initiate similar workshop approaches for others.

Development of Guidelines for Wildlife Policy in Canada (1)

PROGRESS REPORT

Paul Griss
Executive Director
Canadian Nature Federation

I would like to give the conference an update on where we are at on the development of the revisions to the Guidelines for Wildlife Policy in Canada.

Perhaps I should give a brief history of what has happened with this policy for the benefit of some of the people in the room. It goes back to 1980 and 1981, when the Federal-Provincial Wildlife Conference was oriented around the theme, "A national wildlife policy for Canada." From that, a task force was established that developed what it was hoped would become a national wildlife policy. But, for a variety of reasons, it became Guidelines for Wildlife Policy in Canada, which is a document that was endorsed by the Wildlife Ministers at the time, with a clause in the document that said it would be opened up for review in five years.

That occurred in 1987, and the theme of the 1987 Federal-Provincial/Territorial Wildlife Conference in Tuktoyaktuk was "Agenda for tomorrow." Another task force was established to review the Guidelines for Wildlife Policy in Canada and to develop an actual "Agenda for tomorrow." This task force was to report back to the conference in 1988. However, the theme for the 1988 conference became, "Is the current direction of wildlife management in Canada outdated?" So the task force discussed with the program committee the idea of turning the 1988 conference into somewhat of a public review of the Guidelines for Wildlife Policy in Canada.

By focusing the conference agenda on assessing whether the direction of wildlife management in Canada is outdated and around this document, it was a way of determining whether this was still a good, valid document. To that end, there was a large public participation last year in Victoria, with fairly extensive workshop sessions, where the participants all went through the Guidelines for Wildlife Policy in Canada and made recommendations.

The task force has taken every single recommendation that came out of last year's conference into consideration in developing the new working document for a National Wildlife Policy, and I think that is something that is key. We are pushing the document now as a National Wildlife Policy, not as guidelines anymore. The intention is that Wildlife Ministers will sign off this as Canada's national policy on wildlife.

The "Agenda for tomorrow" component has been put on hold because we have always seen that as an action component of the policy, and it did not seem to make much sense to us to spend a lot of time developing an action component when we did not have a policy. I think that is something that will still be addressed over the next couple of years.

The task force completed a final draft of a working document for a National Wildlife Policy at the end of April of this year. Just for your information, the task force includes Bob Andrews from Alberta; Tom Beck, who is also from Alberta; myself; Stephen Hazell, who was with the Canadian Wildlife Federation and is now with the

Canadian Arctic Resources Committee; Tony Keith from the Canadian Wildlife Service, who is chairing the task force; Dave Neave from Wildlife Habitat Canada; Don Simkin from Ontario; and Art Smith from Prince Edward Island.

This working document was completed at the end of April, as I mentioned, and was submitted to all of the Wildlife Directors in the country for comment. It was discussed by the Wildlife Directors at their meeting last weekend; although I was not part of that meeting, I understand that fairly good discussion ensued. We have asked all the Wildlife Directors to return their comments to us by 10 July, and we are going to put together a final amended text of the document by the end of July. At that time, the final draft of the National Wildlife Policy is going to be distributed to everybody who was a registrant at the Victoria conference, and everybody who is a registrant at this conference, to solicit additional public comment.

A summary of all the comments that are received will be appended to the final draft and will be presented to the Wildlife Ministers at their meeting in November, at which time we are hoping that we can finalize the proceedings for getting the document adopted as a National Wildlife Policy. We do not know whether they will take it as developed or whether they will want to do some more consultation on it.

Having listened to Dr. Johnston's presentation the other day, and to the results of the three workshops, I must say that in looking back at the draft that has been put together, I think there is a great deal of harmony between what has come out of this conference and what has been put into the working document for a National Wildlife Policy. I think it meshes very nicely with the direction that this conference seems to be going in.

So, the Wildlife Directors have it, the comments will be back by July, and sometime in August every one of you should get a copy for your own independent review. I hope that we will get it brought up, and maybe even approved in principle, by the Wildlife Ministers in November of this year.

DISCUSSION

Ian Juniper (Hunting, Fishing and Trapping Coordinating Committee Secretariat, Quebec): I would just like to know, when we receive the final draft at the end of July or August, will we have the opportunity to comment on it to you? Will there be any chance of our comments or recommendations being considered to modify the final draft?

Paul Griss (Executive Director, Canadian Nature Federation): Yes. What will happen is that it will go out to everybody at the end of July for their review. Everyone who receives it is welcome to make comments on it. Any comments that are received will be appended to the draft, which will then be presented to the Wildlife Ministers. Because there has already been this full public input into the original development of the document, we do not want to throw it out for full public review and have to start all over again. What we are going to do is present what the task force has come up with, and any additional comments will be appended to the document, which will then go to the Wildlife Ministers. They can decide for themselves how much of this additional information they want to incorporate.

David Pike (Director, Newfoundland Wildlife Division): Ian, Paul is not aware of the letter that you sent to me concerning the policy. That letter will be considered by the task force in this draft that is now to be prepared.

Paul Griss (Executive Director, Canadian Nature Federation): Actually, I just found out about that letter the other morning, and those concerns are definitely going to be addressed.

Unknown speaker: Paul, I have no knowledge at all of the policy you are talking about, so I am speaking from total ignorance. I want to make this comment because I had expected it to come up in this conference at some point, but it has not yet come up, and this may be the appropriate time to raise it.

I have not heard any reference to the National Forest Sector Strategy at the hearing or at this conference so far. The reason I raise that is because this seems to be somewhat of a parallel type of exercise to that National Forest Sector Strategy. It seems to me that, if possible, you should piggyback or in some way combine those two exercises, because there is such a major commitment in the National Forest Sector Strategy to nontimber values, in particular wildlife. It may not cover the full spectrum of what you want in the wildlife policy, but I am surprised that it has not been raised at this conference so far, and this seems to be a way perhaps to build on what has happened with that particular strategy.

Paul Griss (Executive Director, Canadian Nature Federation): Of course, the National Forest Sector Strategy and a number of other initiatives all affect wildlife. What we have done in the development of this policy is look at all the other policies and strategies that are out there. Many, like the National Forest Sector Strategy, the

Federal Wetlands Policy, and the Federal Water Policy, are referenced in the document now, to try to build some form of bridge between the sectors that was not in the original document. There has therefore been some attempt to take that into consideration.

Unknown speaker: Perhaps simply cross-referencing takes care of my concerns. But, because of the nature of this conference, it seems you should have an integrated resource management policy, an umbrella policy, that deals with all of the discrete types of things we are talking about.

Paul Griss (Executive Director, Canadian Nature Federation): I would suggest that you would probably get a wildlife policy first, which could then be integrated into a broader policy, such as a National Conservation Strategy or something like that.

Report on recommendations submitted to the Canadian Wildlife Directors' Meeting, 18 June 1989

David Pike
Director
Newfoundland Wildlife Division

The Canadian Wildlife Federation submitted six recommendations (Nos. 1-6) for consideration, and one additional recommendation (No. 7) was submitted by the Quebec Hunting, Fishing and Trapping Coordinating Committee. The recommendations are as follows:

Recommendation No. 1—Commendation: Canadian Wildlife Service

Background

In recent years, the Canadian Wildlife Service has motivated regional and Head Office staff to initiate and/or coordinate public awareness events during National Wildlife Week. Western Region was the first to set the example. For the past three years, Head Office has coordinated a program with an increasing focus in the National Capital Region. This year, Atlantic Region launched a program, as did Ontario Region. We understand that discussions to include other regions are under way.

These initiatives inspire the participation of various sectors of society, including the business sector, nongovernmental organizations, and governmental agencies, many of whom have not traditionally been involved in National Wildlife Week. In provinces and territories where National Wildlife Week festivities are entrenched, such as in Alberta, Manitoba, Ontario, and the Northwest Territories, the involvement of Canadian Wildlife Service regional and head offices represents an important contribution to the overall effort.

Recommendation No. 1

In recognition of the outstanding level of support and participation of the Canadian Wildlife Service of Environment Canada to facilitate regional public awareness events for National Wildlife Week, the Canadian Wildlife Federation recommends that a letter of commendation be sent in the name of this conference to the federal Minister of Environment, The Honourable Lucien Bouchard.

The Canadian Wildlife Federation further recommends that the Canadian Wildlife Service consider developing a formal internal mechanism to further refine and identify its emerging role as a regional facilitator in the longer term.

Recommendation No. 2—Letter of thanks: The Honourable John Fraser

Background

Mr. Fraser was selected as the 1989 National Wildlife Week Ambassador by the Selection Committee struck at the 1988 Federal-Provincial/Territorial Wildlife Conference. Mr. Fraser kindly accepted our invitation and formally launched National Wildlife Week at the opening of the National Wildlife Week festival in the National

Capital Region. His continuing involvement and support over the year represent an important contribution to the visibility and prestige of the overall National Wildlife Week program.

Recommendation No. 2

The Canadian Wildlife Federation recommends that a letter of thanks and appreciation be sent in the name of this conference to The Honourable John Fraser, Speaker of the House of Commons, for his outstanding contribution as the national-level Ambassador for National Wildlife Week in 1989.

Recommendation No. 3—Extension of Habitat 2000 approach in National Wildlife Week education kit

Background

Habitat 2000 is a Canadian Wildlife Federation youth education program that emphasizes direct hands-on learning experiences about wildlife and the environment. The Canadian Wildlife Service of Environment Canada and Wildlife Habitat Canada joined as cosponsors in 1989 and participate financially in the Habitat 2000 Fund.

By resolution at the 1988 Federal-Provincial/Territorial Wildlife Conference, it was agreed that Habitat 2000 would be launched and would be a part of the National Wildlife Week education kit in celebration of the 25th anniversary of the school program.

At the time of writing, approximately 250 schools and youth groups were participating in the program, representing the direct involvement of about 20 000 youngsters. This response is indicative of the success of Habitat 2000.

The Canadian Wildlife Federation is committed to furthering the objectives of Habitat 2000 and will undertake to encourage additional sources of longer-term funding from the corporate sector.

Recommendation No. 3

In view of the success of the Habitat 2000 component of the National Wildlife Week education kit, the Canadian Wildlife Federation recommends that Habitat 2000 be extended and launched during National Wildlife Week until the year 2000.

The Canadian Wildlife Federation also recommends that Habitat 2000 be thematically linked to annual themes for National Wildlife Week.

We further recommend that all federal, provincial, and territorial wildlife agencies continue to support this worthy effort and consider participating financially.

Recommendation No. 4—1991 National Wildlife Week theme

Background

By resolution at the 1988 Federal-Provincial/Territorial Wildlife Conference, the 1990 National Wildlife Week theme will focus on sustainable development.

Recommendation No. 4

The Canadian Wildlife Federation recommends that the 1991 theme focus on wildlife matters associated with water environments, such as wetlands, acid rain, riparian habitats, water quality, and related topics.

Recommendation No. 5—Ad hoc National Wildlife Week Advisory Committee

Background

National Wildlife Week represents an important opportunity for all governmental and nongovernmental conservation and wildlife agencies and organizations to promote wildlife conservation. Given the increasing levels of interest and participation in National Wildlife Week, it is our view that National Wildlife Week is becoming one of the most visible weeks celebrated during the year throughout Canada.

As the national sponsoring organization of National Wildlife Week in Canada, the Canadian Wildlife Federation provides overall leadership at the national level under the auspices of the Federal-Provincial/Territorial Wildlife Conference. In this capacity, we believe that we have stimulated considerable positive actions and initiatives. The Canadian Wildlife Federation intends to further refine and develop the national-level potential of National Wildlife Week.

We strongly support the provincial/territorial and federal regional initiatives. These efforts, combined with the Canadian Wildlife Federation's activities at the national level, all contribute to the success of National Wildlife Week to date. They collectively represent important efforts and are the ingredients for major Canada-wide media and other events.

Last year, the Federal-Provincial/Territorial Wildlife Conference struck a Selection Committee to assist the Canadian Wildlife Federation in the selection of the 1989 National Ambassador for National Wildlife Week. We propose that this committee's terms of reference be expanded into an ad hoc National Wildlife Week Advisory Committee in the next year to determine the most feasible method of coordinating provincial/territorial and federal regional programs as effective components of the national-level program.

Recommendation No. 5

The Canadian Wildlife Federation recommends that the Selection Committee for a National Wildlife Week Ambassador be expanded into an ad hoc National Wildlife Week Advisory Committee for a period of one year. In addition to helping the Canadian Wildlife Federation select a national ambassador for National Wildlife Week for the 1990 program, the committee would seek to determine a feasible method of coordinating provincial/territorial and federal regional programs related to National Wildlife Week as effective components of the Canadian Wildlife Federation's national-level program.

Recommendation No. 6—National Conservation Education Strategy

Background

The Canadian Wildlife Federation is committed to promoting the achievement of Canadian conservation and environmental education objectives as reflected in the

World Conservation Strategy. Programs such as Project WILD, National Wildlife Week, and Habitat 2000 represent an important contribution, as do many other initiatives undertaken by wildlife agencies and nongovernmental organizations. Nonetheless, a need continues to exist to firmly entrench conservation and environmental education goals within educational systems in Canada in the longer term.

The Canadian Wildlife Federation proposes to serve as the initiator of a National Conservation Education Strategy for Canada. We perceive that the development of the Strategy would be a major cooperative effort that would involve federal, provincial, and territorial governmental agencies, conservation organizations, and the education community. The Canadian Wildlife Federation will invite the support and participation of appropriate parties to join it in this initiative.

Recommendation No. 6

The Canadian Wildlife Federation recommends that the Federal-Provincial/Territorial Wildlife Conference endorse in principle the concept of a National Conservation Education Strategy for Canada.

We further recommend that all members of this conference consider participating as partners in this undertaking.

Recommendation No. 7—Implementation of protocol to amend the Migratory Birds Convention

Background

Paragraph 24.14.3 of the James Bay and Northern Quebec Agreement obliges the federal government, upon the execution of the Agreement, to take all reasonable measures to modify or amend any particular provisions of the Migratory Birds Convention Act or the Regulations pursuant thereto that conflict or are incompatible with the hunting, fishing, and trapping regime. The aforementioned protocol is an attempt on the part of the government to fulfill this obligation. However, 10 years after the protocol was signed, the Government of Canada is no closer to implementing the protocol than it was when it signed it.

Recommendation No. 7

The Hunting, Fishing and Trapping Coordinating Committee recommends that a strategy for the ratification and implementation of the protocol to amend the Migratory Birds Convention be formulated as soon as possible.

* * *

Action on recommendations

The Canadian Wildlife Directors considered all these recommendations, and action will be taken as follows:

Recommendation No. 1

A letter of commendation will be sent to The Honourable Lucien Bouchard.

Recommendation No. 2

A letter of thanks will be sent to The Honourable John Fraser.

Recommendation No. 3

The Canadian Wildlife Directors endorse in principle the concept of Habitat 2000. Jurisdictions will be asked to consider participating financially.

Recommendation No. 4

The theme suggested for 1991 was accepted.

Recommendation No. 5

The Honourable John Fraser will be asked to continue in his role as National Wildlife Week Ambassador. Ontario, Quebec, and the Canadian Wildlife Service will serve on the ad hoc advisory committee. Letters will be sent to all jurisdictions.

Recommendation No. 6

The Canadian Wildlife Directors endorse in principle the concept of a National Conservation Education Strategy. Jurisdictions will be asked to consider participating as partners.

Recommendation No. 7

The recommendation will be passed on to the jurisdiction(s) concerned.

Reports (1)

COMMITTEE ON THE STATUS OF ENDANGERED WILDLIFE IN CANADA (COSEWIC)

William T. Munro
Chairperson

The 12th report of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is provided for your consideration. COSEWIC is mandated by the Federal-Provincial/Territorial Wildlife Conference (FPTWC) to determine the status in Canada of wild species whose future may be in doubt and to release the information upon which the declaration of status is based. The Canadian Wildlife Directors, at their June 1988 meeting, decided that COSEWIC should now report to them rather than to the FPTWC.

Classification actions

COSEWIC, in its prime role, assigned status to 31 species and populations on 18-19 April 1989. One species, the wolverine, had been previously studied by COSEWIC and was reevaluated this year. The Committee decided that the wolverine should be divided into two distinct populations for status determination. The eastern population is considered endangered by the Committee, and the western population, vulnerable. Fourteen of the 31 species reviewed were considered by the Committee as not requiring designation at this time.

Committee decisions, based on status reports and agreed status definitions,* were as follows:

VULNERABLE

Plants	
Gulf of St. Lawrence Aster	Aster laurentianus
Fish and marine mammals	
Banded Killifish (Newfoundland population)	Fundulus diaphanus
Bering Wolffish	Anarhichas orientalis
Bigmouth Buffalo	Ictiobus cyprinellus
Black Buffalo	Ictiobus niger
Blackline Prickleback	Acantholumpenus mackyi
Fourhorn Sculpin (Arctic Islands freshwater form)	Moxocephalus quadricornis
Orangespotted Sunfish	Lepomis humilis
Redbreasted Sunfish	Lepomis auritus
Sowerby's Beaked Whale	Mesoplodon bidens

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* Prior to April 1989, "rare" was used as a status designation. As of April 1989, "rare" is no longer used. "Vulnerable" now appears as a status designation. Not all rare species are vulnerable. Some species previously listed as "no designation required" may be vulnerable. New reports will be prepared for rare status and some "no designation required" status as resources permit.

Reptiles and amphibians

Northern Prairie Skink	*Eumeces septentrionalis*
Pacific Giant Salamander	*Dicamptodon ensatus*

Mammals

Wolverine* (western population)	*Gulo gulo*

THREATENED

Plants

Purple Twayblade	*Liparis liliifolia*

Birds

Baird's Sparrow	*Ammodramus bairdii*

Fish and marine mammals

Margined Madtom	*Noturus insignis*

ENDANGERED

Mammals

Wolverine* (eastern population)	*Gulo gulo*

Status reports were also prepared on the following species, and the Committee decided no designation was required at this time.

Fish and marine mammals

Banded Killifish (mainland)	*Fundulus diaphanus*
Blainville's Beaked Whale	*Mesoplodon densirostris*
Brook Silverside	*Labidesthes sicculus*
Dall's Porpoise	*Phocoenoides dalli*
Fourhorn Sculpin (saltwater form)	*Myoxocephalus quadricornis*
Golden Redhorse	*Moxostoma erythrurum*
Hubbs' Beaked Whale	*Mesoplodon carlhubbsi*
Least Darter	*Etheostoma microperca*
Ringed Seal	*Phoca hispida*
River Darter	*Percina shumardi*
Spoonhead Sculpin	*Cottus ricei*
Stejneger's Beaked Whale	*Mesoplodon stejneri*
True's Beaked Whale	*Mesoplodon mirus*

Mammals

Lynx	*Lynx canadensis*

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* Wolverine was designated rare in 1982. Separate populations were designated in 1989: western population--vulnerable; eastern population--endangered.

Table 1. COSEWIC status designations as of April 1989.

Category (status)	Birds	Mammals (terrestrial)	Mammals (marine)	Fish	Plants	Amphibians and reptiles	Total
Rare*	16	13	3	22	18	1	73
Vulnerable**	0	1	1	8	1	2	13
Threatened	7	5	2	10	18	-	42
Endangered	8	3	5	3	17	1	37
Extirpated	-	2	2	2	1	-	7
Extinct	3	1	1	4	-	-	9
Total	34	25	14	49	55	4	181

* Species designated prior to 1988.
** First used as a designation in 1989.

In addition, COSEWIC has reviewed status reports on 50 species and populations and determined that no designation was required at this time (Plants—1; Birds—12; Mammals (terrestrial)--8; Mammals (marine)--13; Fish--16).

Other COSEWIC highlights

1. COSEWIC notes with gratitude the contributions of the Fish and Marine Mammals, Plants, Mammals, Birds and Reptile and Amphibian Subcommittee chairmen.

2. Dave Mossop, Yukon Department of Renewable Resources, presented the Task Force report on recent invaders. The Task Force was to come to agreement on the issue of assigning status to species that have only recently (within 50 years) expanded their range into Canada for whatever reason. The Task Force basically decided this was a nonissue because it was already covered in the COSEWIC Organization and Procedures Manual. If evidence suggests the species has recently invaded Canada or there is evidence that it is not currently maintaining viable numbers in Canada, the onus is on the subcommittee chairman to convince the Committee, as a whole, that the species has resided in Canada sufficiently long to be considered a viable component of Canada's biota.

   The Task Force's recommendation is: "Species thought to be recent invaders are excluded from COSEWIC deliberations unless they are natural invaders and, in the opinion of the Committee, have produced viable populations in Canada historically."

3. Karen Lloyd updated the Committee on the development of the Canadian Wildlife Service database for threatened and endangered species. The database is completed and maps have been produced on all species except for two fish for which no information was received. Ms. Lloyd asked COSEWIC to consider asking authors to complete update forms for species when preparing status reports. Some of her data are more recent than most recent COSEWIC information on some species;

as COSEWIC updates its reports, individual contractors or members may want to make reference to, or get a printout of, the database as a starting point that would be a common format for all of the reports.

4. The status definition "vulnerable" was first used this year. Committee members had interpreted this definition in different ways—for example, should "naturally rare" species be considered vulnerable because of their rarity, or does there have to be an element of risk involved? It was agreed that a designation of vulnerable indicates that the species is at some risk.

5. The 1989 COSEWIC list has a notation: "Prior to April 1989, 'rare' was used as a status designation. As of April 1989, 'rare' is no longer used. 'Vulnerable' now appears as a status designation. Not all rare species are vulnerable. Some species previously listed as 'no designation required' may be vulnerable. New reports will be prepared for rare status and some 'no designation required' status as resources permit." It was decided that the Committee would have to vote on all "rare" species status reports as well as some species that are now in "report accepted/no designation required" designation, e.g., polar bear, before they could be put in the vulnerable category.

6. Sue Crispin, Nature Conservancy of Canada (NCC), gave an update on NCC data centres, which provide information on funding, and on which jurisdictions were participating in and those expected to join the program. She explained that the data system offers the opportunity to take advantage of all the data that have been collected in the United States and Latin America, and that these countries would have better access to the data that have been collected on Canadian species and ecosystems. The Chairman thanked Ms. Crispin and said it is now up to individual jurisdictions to look at and be aware of the program.

7. Some discussion took place on the delay in the release of last year's status reports, in particular the ginseng report. Ontario is not satisfied with the information in the report on their CITES procedures. The Chairman is to contact Don Simkin. Procedures regarding CITES are to be corrected immediately, and a title page is to be added indicating that there are other interpretations of these data but that COSEWIC made the designation on the basis of the interpretation in this report.

8. COSEWIC was directed not to consider invertebrates by the Canadian Wildlife Directors in June 1988. COSEWIC was requested to put together a proposal on invertebrates, including suggestions for the makeup of the subcommittee. The working group will specifically address implications to COSEWIC's mandate and to government organizations. Irene Bowman, Ontario Ministry of Natural Resources, will chair the working group and have a report available by April 1991. Merlin Shoesmith, Manitoba Department of Natural Resources, has agreed to sit on the committee. Other members will be named later.

9. Merlin Shoesmith, Manitoba Department of Natural Resources, agreed to chair a subcommittee to look at the possibility of marrying the requirements for CITES and COSEWIC reports into a common report and to report back to the Committee in April 1990. Chuck Dauphiné, Bob Campbell, and Chris Shank are to be members of this subcommittee.

10. In April 1988, a habitat working group chaired by Irene Bowman was given the task of investigating whether there is a need to designate endangered habitats and

whether COSEWIC is the appropriate vehicle for such designation; to investigate what role a COSEWIC subcommittee on endangered habitat might play and whether any other existing committees are already fulfilling this role; and to investigate definitions and guiding principles that would have to be established in order to assign status to endangered habitat. Ms. Bowman reported that the Canadian Council on Ecological Areas (CCEA) was formed in 1982 to encourage the selection, protection, and stewardship of a comprehensive system of ecological reserves in Canada. Jurisdictions use their own criteria and feed those into the national registry that CCEA is in the process of developing.

The working group recommends that there be no designation of endangered habitats by COSEWIC and no subcommittee on endangered habitats. It also recommends that COSEWIC should liaise more with CCEA and suggests that a COSEWIC representative sit in on CCEA meetings and vice versa. Other members of the committee were Luba Mycio-Mommers, Canadian Wildlife Federation, and Dale Hjertaas, Saskatchewan Department of Parks, Recreation and Culture.

The working group recommended that the following management needs be identified as priorities at the June 1989 meeting of Wildlife Directors:

(i) There is a need to identify species within jurisdictions susceptible to declines due to habitat fragmentation and the resulting loss of genetic diversity.

(ii) Based on information obtained from studies outlined in point (i), there is a need to evaluate whether sufficient habitat is being maintained for susceptible wildlife species. Once spatial requirements are more clearly defined, wildlife managers will need to provide this information to land acquisition/protection agencies to ensure that the size and quality of protected areas are large enough to maintain population size and the potential for genetic adaptation.

11. COSEWIC status report summaries will be published in a State of Environment Report in 1989 at a cost of $20-$25. It will be a general book on endangered species for the layman. Environment Canada is co-publishing the book in the fall with a Saskatchewan company, "Prairie Books."

12. The Committee decided that there is still a very real need for summary sheets for distribution to the general public, especially schoolchildren. Luba Mycio-Mommers, Canadian Wildlife Federation, is to look into various methods of publishing summary sheets and to provide COSEWIC with a report on options and costs at the April 1990 meeting.

13. Chuck Dauphiné was appointed Chairperson for the Nominating Committee, which will nominate people to run for COSEWIC chairperson for the next two-year term. Other persons on the committee will be a representative of a province/territory and a representative of nongovernment organizations. The Nominating Committee Chairperson will report to COSEWIC in April 1990. The Nominating Committee is also to address voting procedures for both chairperson and status reports.

14. Chuck Dauphiné gave a brief update on RENEW (the Committee for Recovery of Nationally Endangered Wildlife in Canada), which will have its inaugural meeting in June 1989 in conjunction with the Federal-Provincial/Territorial Wildlife Conference. Items to be discussed include: adoption of bylaws, suggested

procedure for the ranking of species for recovery action, and a suggested format for recovery plans. Approximately five draft recovery plans will be submitted for approval, covering such species as the Piping Plover, Wood Bison, Ferruginous Hawk, and Burrowing Owl. It is expected that RENEW will make a decision as to how many teams will be set up and that plans will be started right away. Chuck Dauphiné is to check on how COSEWIC will initiate a status report after a recovery team has worked on a species.

15. Erich Haber suggested that the Nature Conservancy of Canada become a voting member of COSEWIC. The Chairman said they would have to submit an "official" written request for consideration by Canadian Wildlife Directors.

16. Nancy Doubleday, Inuit Tapirisat of Canada (ITC), attended the meeting as an observer. It was suggested that consideration should be given at some point to extending membership on the Committee to native groups that clearly have a mandate for conservation, research, and management through native agreements. It was suggested that ITC should be the official "voting" member representing native organizations. Again, an "official" written request is needed before a decision can be made. It was recommended that COSEWIC representatives from the Northwest Territories, Yukon Territory, and Quebec ask their directors to bring this up at the Directors' Meeting in June.

17. Funding was an area of concern. I request the directors of provincial and territorial wildlife agencies to again consider how they might provide additional monies to produce COSEWIC status reports or to provide the time of provincial or territorial staff to write status reports.

18. Erich Haber is to prepare at least four minireports on extirpated plant species, which will be sent to jurisdictions at least four months before the April 1990 meeting.

19. The next COSEWIC meeting will be held on 10-11 April 1990.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)

John B. Heppes
CITES Administrator

The years between biennial meetings of the Parties are normally quiet years, and 1988 was no exception. International activities included the attendance of the Administrator at a number of North American and international meetings concerning CITES. The volume of correspondence received from the public increased over that of 1987, as did the number of telephone calls received by the two officers in the CITES office. The number of CITES permits issued by Canadian Management Authorities increased slightly over 1987.

Standing Committee of the Parties to CITES

The Standing Committee of the Parties to CITES, of which Canada is a member, met once, in Costa Rica, on 25-31 January. The Canadian delegation to the Meeting included Mr. H.A. Clarke, Director General, Mr. D.K. Pollock, Director, Mr. J.B. Heppes, CITES Administrator, and Ms. C. Markham, Department of External Affairs. The main topics of discussion included the implementation of Resolution Conf. 6.1 Establishment of Committees, the confidentiality of Standing Committee documentation, problems of the elephant ivory trade, and the establishment of an African elephant working group.

Animals Committee

The Animals Committee, chaired on behalf of Canada by Dr. Merlin Shoesmith, Government of Manitoba, met in Berne, Switzerland, on 7-11 November 1988. The Committee reviewed the biological status of a number of CITES species and allocated species that needed further review to individual Committee members. The next meeting of the Animals Committee will be held during April 1989. The Plants Committee met in London, England, during November 1988. As the Region is represented by the United States, Canada did not send a representative to the meeting.

North America Region CITES meetings

Two North America Region CITES meetings were held during 1988. The first, in Arlington, Virginia, U.S.A., during April, was attended by delegates from Canada, Mexico, and the United States; the second, held in Halifax, Nova Scotia, during November, was attended by CITES representatives from Canada and the United States. Both Canadian delegations were headed by Mr. Pollock and included CITES administration, scientific, and enforcement officers. Officers handling CITES matters in the federal departments of Fisheries and Oceans, Agriculture, and External Affairs and in all provinces and territories were invited to attend both meetings. Many accepted the invitations and joined the Canadian Team. Both meetings dealt with minor CITES problems concerning shipments of live animals and products between Canada and the United States and with coordination between Canada and the United States at CITES international biennial meetings.

Transportation of live animals

The Live Animals Board (LAB) of the International Air Transport Association (IATA) met three times during 1988, in Washington, D.C., U.S.A., on 20-21 April; in Amsterdam, Netherlands, on 2-6 May; and in Montreal, Quebec, on 7-11 November.

The CITES Administrator, Mr. Heppes, attended all LAB meetings in his capacity as Chairman of the CITES International Transportation Working Group. The Working Group is particularly concerned about the housing and care of wild animals while in transit between countries. The Parties to CITES have adopted the IATA Live Animals Regulations as CITES guidelines for the international movement of CITES specimens. Mr. Heppes also attended the annual meeting of the Animal Air Transport Association Inc. held in Amsterdam on 8-11 May, during which he spoke on CITES and chaired the Small Animals sessions of the Meeting.

Other activities

Mr. Heppes attended the annual Canadian Association of Zoological Parks and Aquariums (CAZPA) Board of Directors meeting in Hull, Quebec, on 22 April, and the CAZPA annual meeting in Moncton, New Brunswick, on 6-7 October, where he spoke about CITES--the present and the future.

POLAR BEAR ADMINISTRATIVE COMMITTEE (PBAC)

Ian Stirling and Kevin Lloyd
Canadian Wildlife Service

The 1989 meeting was held in St. John's, Newfoundland. All jurisdictions were present. Delegates from the Labrador Inuit Association and the James Bay Hunting, Fishing, and Trapping Coordination Committee attended as observers.

The discussion of zones and quotas focused on the need to manage subpopulations individually. The Northwest Territories has just completed a preliminary review of the Polar Bear Management Plan for the approximately 12 Canadian populations. Eight of these are shared with at least one other national or international jurisdiction. This emphasizes the need for jurisdictions to coordinate their management objectives and distribution of quotas for shared populations. Specific management plans are now being developed for the Beaufort Sea and eastern Baffin Island. This will require about two years of community consultations as part of the process.

On behalf of the Northwest Territories, Kevin Lloyd offered to host a meeting of the Baffin Region Inuit Association, the Quebec Inuit Association, and the Labrador Inuit Association to discuss the development of a cooperative management plan for the population of polar bears they share. This population appears to be contiguous through southern Foxe Basin, northern Hudson Bay, Hudson Strait, and the Labrador Sea. There may be some discontinuities in the distribution pattern, but, if they exist, they are not known at present. The ultimate goal would be to encourage the development of more effective conservation measures, such as reducing the proportion of females in the harvest, sharing the available quota equitably between all user groups, and ensuring a healthy polar bear population in the region for the future. This initiative was supported unanimously.

The Beaufort Sea Polar Bear Management Plan has been in place for one year and is functioning very well so far. The Administrative Committee will send a letter to each of the two user groups involved to congratulate them on their progress.

Manitoba is continuing to develop guidelines for managing nonconsumptive users in order to reduce the risk of excess disturbance of the polar bears while they are resting along the coast. Interest in viewing polar bears is also increasing in other jurisdictions. A survey of toxic chemicals in polar bears, nationally and internationally, is planned for 1990 as part of a long-term monitoring project. This will be done on a circumpolar basis if possible.

The Technical Committee was encouraged to summarize available information on the pattern of hunting and use of polar bears with a view to developing an educational program aimed at reducing the number of females harvested throughout Canada.

Invitation to 54th Federal-Provincial/Territorial Wildlife Conference

Lorne Colpitts
Director
Manitoba Wildlife Branch

On behalf of the Province of Manitoba and, more specifically, the Department of Natural Resources, we would like to cordially invite all of you to attend next year's 54th Federal-Provincial/Territorial Wildlife Conference. It is the first time Winnipeg has had the opportunity to host the event since 1977, and we are eagerly awaiting the opportunity to act as host. As you are aware, Manitoba is the Keystone Province, the gateway to the West and also the gateway to the Prairie Habitat Joint Venture of the Canadian portion of the North American Waterfowl Management Plan.

There are a tremendous number of things to see within the city itself and its surroundings. Please bring your spouses and your children, if possible. We will have an excellent tour for the spouses. Winnipeg is a melting pot of ethnic groups; there are all kinds of great restaurants and a lot of interesting shops around town. It will be difficult to meet the high standards that Dave Pike and his staff have set this particular year, but we will do our best.

Ross Thompson, your Chairman for next year, will now come forward to provide a few more details on the conference.

Framework for 54th Federal-Provincial/Territorial Wildlife Conference

Ross Thompson
Chairman
54th Federal-Provincial/Territorial Wildlife Conference

It is my pleasure to serve as your Chairman for the 1990 Federal-Provincial/Territorial Wildlife Conference, which will be held at the same time next year at the Holiday Inn in Winnipeg.

To reiterate what Lorne said about this year's committee, it will be no small challenge to match the genuine hospitality, enthusiasm, and charm with which Dave and his staff put together this year's conference. Well done, Dave, and I hope we can match the high standards that you have established.

Winnipeg will feature phase 2 of the three-year redress of integrated management from a prairie, wetland, soil, water, and sustainable use perspective. Features will be, of course, waterfowl management and planning in that regard, based on local working examples and updates. Carrying forward what we learned from the workshops this morning, I think we will work hard on processes, planning, public involvement, legislation, and teamwork to make integrated planning that much easier. Integration 2 will, we hope, set the stage for phase 3 in 1991 in New Brunswick, where regional integration will be the focus. I am excited about next year's conference, the talented and energetic crew that have been put with me, and the prospects for a very rewarding, fun, and worthwhile conference.

Conference closing

David Pike
Director
Newfoundland Wildlife Division

That brings us to the end of our program. It has been a most interesting week, and I trust you all found it interesting, informative, and rewarding. In my closing remarks, I want to thank the members of the Program Committee for their work and dedication in developing the program and, in particular, in seeking out speakers. I want to say a special word of thanks to Doug Pollock and Sylvia Normand from the Canadian Wildlife Service for their help; I must also, of course, again thank the speakers--the panelists, summarizers, rapporteurs, the keynote speaker, and so on--for their very fine presentations. I want to thank all the delegates to the conference, who made the conference work.

There was an observation made earlier that I have been Chairman of this conference on two separate occasions. I want to remind you that I am not the only one in that position. There is another provincial Wildlife Director who had that honour before me--Merrill Prime of Nova Scotia.

I also must thank the members of my staff who helped organize and run the conference, in particular Lucy O'Driscoll, Dennis Minty, and Jim Hancock for preconference arrangements. Lucy and Dennis organized the field-day activities, and Lucy organized and ran the registration desk with Margo Hoban, Annette Whiteway, and Amy Rideout. In addition to these people, who were present here for much of the conference period, there were others working behind the scenes and keeping things running in the office--John Lear, in particular, Frank Adams, and Rick Gulliver. I know I have not mentioned everybody, but I singled these out for their particular assistance.

I mentioned earlier that I started my formal career in the Wildlife Division with Don Dodds. Prior to that, I had contact with another "Wildlife Don"--Don Simkin; for those of you who might not know it, Don Simkin and I worked for the Newfoundland Wildlife Division as students in 1956. We started here in 1956, and now we are for all intents and purposes finishing here in 1989. They have been good years. I am going to miss this racket, there is no doubt about that. I will probably still be working with the Wildlife Division very close to this time next year, but I think it will be more appropriate for somebody else to represent the organization at that time. I think I have been to 25 of these conferences altogether; I know this is the 20th consecutive conference I have attended.

I know that we have had our differences, arguments, and so on, both at the Directors' Meetings and at the conferences. However, we have usually ended up in agreement, or at least a consensus. As I said, they have been enjoyable years. I encourage all of you to continue your efforts for wildlife conservation in this country. I wish all of you well, and I hope you enjoy the remainder of your stay in this province and have a safe trip home.

The 53rd Federal-Provincial/Territorial Wildlife Conference is now adjourned. Thank you very much.

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